JONGWOOK WOO

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Summary of Qualifications

- Thorough and practical knowledge and experience of current Big Data AI architecture, Distributed Parallel Computing, prescription analysis, and prediction analysis, and a clear vision to accomplish the business/scientific analytics goals using Big Data.
- Results-oriented, high-energy, hands-on professional, with a successful record of accomplishments in the industrial projects of Big Data Analysis and Science, Information Retrieval / Integration, and enterprise applications.
- Major strengths include strong leadership, excellent communication skills, competency, strong team player, attention to detail, dutiful respect for compliance in all regulated environments, as well as supervisory skills including advising students, leading team members and S/W engineers, and other administrative and presidential tasks.
- Excellent Entrepreneur experience as founders of Big Data AI Center at Isaac Engineering, The Big Link LLC, and Hemosoo Inc.
- Excellent relationship with the leading industrial and government sectors
- Years of leadership experience in Korean Army, Associations, Conferences, Companies, University

Professional Accomplishments

- Co-founder and Technical Advisor of BDAI (Big Data AI) center of Isaac Engineering and achieved a deal ($5.3 M) using Hadoop of CDH, HDP, Apache, Cloud (AWS EMR, Azure HDInsight, Oracle BDCE, IBM Cloud, Google Cloud Platform), Elasticsearch, Software AG (TrendMiner, Cumulocity), and OSISoft (PISquare) in the area of Smart Factory, Gas & Oil, and eBusiness industry
- First faculty member in the Southern California, who successfully initiated Big Data Analytics program with the courses such as Big Data Analysis, Big Data Science, Data Visualization, Big Data Architecture supported by Amazon AWS, IBM Cloud, Oracle Cloud, Microsoft Azure, Google Cloud Platform, Databricks, Hortonworks, Cloudera, Teradata, Qlik, Tableau, which helps the students to get hired to the major companies in Hollywood and Los Angeles area.
- Delivered research and educational projects successfully ($250,000) for Warner Bros, City of Los Angeles, LAFD, CitySearch.com, Softzen, Korean Government in the area of Big Data Analysis and Prediction, enterprise and search Applications, Cloud Computing services.
- Received research funds ($312,400) from Amazon AWS, IBM Cloud, Microsoft Azure, Oracle BDCE, Google Cloud Platform and Facilitated cloud computing services mostly for Big Data cluster

- 1. First faculty member in the USA and Korea, who developed and delivered Big Data courses since 2011 for data analysis and prediction of Large Scale data set adopting Big Data platform such as Hadoop, Spark, Distributed Deep Learning in distributed parallel computing systems.
- 2. Evangelist to deliver Big Data platform and development skills to the company in Korea, which includes Samsung, LG, SK, KT, Softzen, Isaac Engineering since 2011
- 3. Experts in Distributed Deep Learning to improve the accuracy of predictive analysis with large scale data set
- Educational and research partnerships with the leading Big Data and Cloud computing companies such as Amazon AWS, IBM Cloud, Oracle Cloud, Microsoft Azure, Google Cloud Platform, Databricks, Hortonworks, Cloudera, Teradata, Qlik, Tableau
- Published more than 30 papers with the grad students in the area of Big Data analysis and prediction with the public, business, and social media data sets
- Lead Big Data implementation, training and consulting as a co-founder of a company such as The Big Link LLC and Wiken
- Organize and advise Data Science Federation (http://dsf.lacity.org) and IDEAS (International Data Engineering and Science Association, https://www.ideassn.org/socal-2017/) for data analysis and science hub in the City of Los Angeles
- Collaborated with other universities and companies as technical advisor at IBM Spark Technology Center, Big Data Education Center of The Pennsylvania State University – Altoona, IMSC (Integrated Media Systems Center) at USC, Softzen, The Big Link LLC, CoreTrust
- Received **Appreciation Award for Brain Scouting program** by the president of NIPA (National IT Industry Promotion Agency) of Korea Government, Aug 30 2013; **Appreciation Award for Excellence service as the 39th President of KSEA-SC Chapter** by the president of KSEA-SC (Korean-American Scientists and Engineers Association - Southern California), Dec 16 2011; **Letter of Entrustment for KOTRA KORUS FTA HELP DESK by KOTRA** (Korea Trade Promotion Corporation) of Korea Government, June 6 2011; **Teradata TUN 2017 Faculty Scholarship Winner**

Education

- ***PhD in Computer Engineering (August 7 2001),* Department of Electrical Engineering, *University of Southern California (USC)***
- ***MS in Computer Science (December 1998),* Department of Computer Science, *University of Southern California (USC)***
- ***MS in Electronic Engineering (August 1991),* Department of Electronic Engineering, *Yonsei University (Seoul, Korea).***
- ***BS in Electronic Engineering (February 1989),* Department of Electronic Engineering, *Yonsei University (Seoul, Korea).***

Experience

- **Full Professor, Computer Information Systems Dept., School of Business, California State University, Los Angeles, USA (Sept. 2014 - present):**

    - **Director of BigDAI (Big Data AI) Center** (https://www.calstatela.edu/centers/hipic)
    - **Big Data Analysis and Prediction using Scalable Big Data AI:** Hadoop, Spark, Rapids, Horovod
- **Awardee of Brain Pool program, Korean National Research Foundation (NRF) (May 2021):** Research on AI Technology Leveraging Distributed Parallel Computing Systems of Big Data to Process Large Scale Data
- **Big Data Project with** Widerplanet **(July 2020 - Sept 2020):** Predictive Analysis in AdClick using Dataproc of Google Cloud Platform (GCP); Implement models to improve the accuracy of the prediction with Random Forrest, GBT, Linear Regression, Multilayer Perceptron Classifier
- **Advisor at Big Data AI Center of** Seoul Cyber University **(March 2020 - present):** Founder of Big Data AI Center and advise to develop Big Data Machine Learning AI courses and research
- **Big Data Project with** Softzen **(May 2020 - Aug 2020):** Distributed Deep Learning using Big Data Game Data Analysis and Prediction supported as the program of Brain Pool 2020 by The MSIT (Ministry of Science and ICT) and NRF (National Research Foundation of Korea) in Korea
- **Technical Advisor of** Isaac Engineering**, Korea (May 2018 – Oct 2019):** Big Data AI for smart factory
    - design the Big Data architecture to collect, analyze, visualize, predict massive data set – over 200 TB - in Smart Factory using Hadoop, Spark, Deep Learning, Kudu, Hive, TrendMiner, OPC UA server, NoSQL DB, ElasticSearch
- **Big Data Project with** Softzen **(May 2017 – Aug 2017):** Big Data Game Data Analysis and Prediction
- **Partner with Data Science Federation of the city of Los Angeles (March 2016 - present)**
- **Implementing MicroSoft Course Content, https://github.com/microsoft/computerscience/tree/master/Educator%20Resources/Complimentary%20Course%20Content (Feb 2016 – Dec 2017):**
    - Module 1: Introduction to Cloud Computing (using Azure)
    - Module 4: Data Analysis using Hadoop
    - Module 5: Data Science and Machine Learning (using Spark ML)
    - Module 6: Internet of Things (IoT)
- **Help Cloudera to win a Big Data project with Hyundai Motor, Korea (May 2014)**
- **Certified and Instructor of Cloudera CAP and Hadoop Big Data (Jan 2013 - present)**
- **Big Data Training and R&D**
    - **(June 2013 – Sept 2013)** invited by NIPA (National IT Industry Promotion Agency) of Korea Government's "Brain Scouting Program", Korea
    - **(Dec 14 2011 – Jan 10 2012)** invited by KITECH (Korean Institute of Industrial Technology) of Korea Government's "International Expert Invitation Program", Korea
- **Associate Professor (Tenured), Computer Information Systems Dept., School of Business, California State University, Los Angeles, USA (Sept. 2009 – Aug 2014)**
- **Assistant Professor, Computer Information Systems Dept., School of Business, California State University, Los Angeles, USA (Sept. 2003 – Aug 2009), course web site**
- **Founder of Hemosoo Inc (Sept. 2004 - 2015)**

- Technical Advisor in Data Mining at Social Networking and Mobile Data using Hadoop, NoSQL DB (HBase, MongoDB), TDD, Ruby on Rails, J2EE, CI Server
- E2G2 (Oct 2009 – Nov 2010): Search Engine and Data Retrieval, Integration, Feed Application for local city life information
- City Search (July 2007 – Dec 2008): Search Engine and Data Retrieval, Integration, Feed Application for City Life Information
- ARM (Jan 2007 – July 2007): Web Service Application on TGI of Spirit IP-XACT for Automatic Design Tool
- E! (E Network) (Jan 2006 – Oct 2006): E! Online in Communiqué 4.0 of Day Software
- Warner Bros (WB) Online (Aug 2004 – June 2005): Matrix online game

- **Full Time Lecturer, Computer Information Systems Dept., School of Business, California State University, Los Angeles, USA (Sept. 2002 – Sept 2003)**
- **Research Professor, Yonsei University, Seoul, Korea (March 2002 – Sept. 2002)**
- **Sr. Software Engineer, *Gamma Computer, Woodland Hills, CA* (June 2000 – March 2001)**
- **Sr. Software Engineer, *Magnet Interactive, Culver City, CA* (February 2000 – June 2000)**
- **Web Developer, *SBCI, Pasadena, CA* (September 1999 – February 2000)**
- **R&D Assistant, *BethelSoft Inc., Buena Park, CA* (June 1999 - September 1999)**
- **2D/3D Graphics Programmer, *Behavior Technology Lab., University of Southern California, Redondo Beach, CA* (January 1998 – November 1998)**
- **Teaching Assistant and Research Assistant, *University of Southern California, LA, CA* (August 1995 – June 1999)**
  - Digital Logic Circuit and Design
- **R&D Intern, *Skunk Technology, Santa Monica, CA* (May 1997 – September 1997)**
- **Lieutenant*, Korean Army* (November 1991 – May 1992)**
- **Research/Teaching Assistant, *Yonsei University, Seoul, Korea* (March 1990 – October 1991, June 1992 – July 1993)**

Affiliations

- **Director of BigDAI/HiPIC (Big Data AI Center) at CalStateLA (Sept 2002 - Present)**
  - *http://www.calstatela.edu/centers/hipic/*
- **Advisory Board at IBM Spark Technology Center (Oct 2015 - present)**
  - *http://www.spark.tc/*
- **Advisory Board at Big Data Education Project, The Pennsylvania State University – Altoona (Sept 2016 - present)**
  - *http://sites.psu.edu/bigdata/*
- **External Collaborator of IMSC (Integrated Media Systems Center) at USC (Aug 2010 – Present)**
  - *http://imsc.usc.edu/*
- **Founder of Hemosoo Inc (2004 - 2015)**: eBusiness Applications and Search Engine
- **Founder of The Big Link LLC (Jan 2016 - Present)**: Training Hadoop, Spark, NoSQL DB and Implementing Big Data applications using social data

SELECTED PUBLICATIONS

Selected Journal Papers

(1) Ankita Paul, Shuvadeep Kundu, and Jongwook Woo, "Iowa Liquor Sales Data Predictive Analysis using Spark," Asia Pacific Journal of Information Systems (APJIS), VOL.31 | NO.1 | June 2021, pp185~196, ISSN 2288-5404 (Print) / ISSN 2288-6818 (Online)
   a. **APJIS** has been indexed by **SCOPUS**

(2) Monika Mishra, Jongwook Woo, "Predicting the Ratings of Amazon Products Using Big Data" in Wiley Interdisciplinary Reviews Data Mining and Knowledge Discovery, Vol. 11, No. 3, ISSN 1942-4795, https://onlinelibrary.wiley.com/doi/10.1002/widm.1400, Dec 12 2020
   a. **WIREs DMKD** belongs to **SCIE** (SCIENCE CITATION INDEX EXPANDED) that is the SCI expansion, which is the famous science journal index. It has Impact factor: 4.476; 2019 Journal Citation Reports (Clarivate Analytics): 27/136 (Computer Science, Artificial Intelligence), 12/108 (Computer Science, Theory & Methods)

(3) Monika Mishra, Mingoo Kang, Jongwook Woo, "Leveraging Big Data for Spark Deep Learning to Predict Rating", Journal of Internet Computing and Services, Vol. 21, No. 6, pp. 33-39, Dec. 2020, ISSN 2287-1136 (Online), ISSN 1598-0170
   a. **JICS** has been indexed by KCI

(4) D. Dauletbak and J. Woo, "Big Data Analysis and Prediction of Traffic in Los Angeles," KSII Transactions on Internet and Information Systems, vol. 14, no. 2, pp. 841-854, 2020. DOI: 10.3837/tiis.2020.02.021
   a. **TIIS** has been indexed by **SCIE**

(5) Ruchi Singh and Jongwook Woo, "Applications of Machine Learning Models on Yelp Data", Asia Pacific Journal of Information Systems (APJIS), VOL.29 | NO.1 | March 2019, pp35~49, ISSN 2288-5404 (Print) / ISSN 2288-6818 (Online)
   a. **APJIS** has been indexed by **SCOPUS**

(6) Priyanka Purushu, Niklas Melcher, Bhagyashree Bhagwat, Jongwook Woo, "Predictive Analysis of Financial Fraud Detection using Azure and Spark ML ", Asia Pacific Journal of Information Systems (APJIS), VOL.28 | NO.4 | December 2018, pp308~319, ISSN 2288-5404 (Print) / ISSN 2288-6818 (Online)
   a. **APJIS** has been indexed by **SCOPUS**

(7) Kunal Pritwani, Knox Wasley, and Jongwook Woo, "Spark Big Data Analysis of World Development Indicators", in Global Journal of Computer Science and Technology (GJCST), Volume 18 Issue 3: 1-10, Version 1.0 Year 2018, ISSN 0975-4172
   a. **GJCST** has been indexed by ProQuest, BASE, Pennsylvania Digital Library, Universität Karlsruhe, Ulrich's, JournalSeek Database, Education Resources Information Center, ERIC, Open J-Gate, Informatics Limited, Google Scholar, Bielefeld Academic Search Engine, ourGlocal, Harvester2, HeadKeys, WoTUG, ABCentral

(8) Manvi Chandra and Jongwook Woo, "Big Data Prediction in Hydrogen Gas Power Plant using Apache Spark", in the Review of KSCI (Korean Society of Computer and Information), volume 25, no 1, pp1-6, 2017, ISSN 1598-8481(Print), 2383-997X (Electronic)
   a. **KSCI** has been indexed by **KCI**

(9) Kunal Pritwani, Atinder Singh, Dharmesh Soni, Mounika Vallabhaneni and Jongwook Woo, "Historical College Scorecard Big Data Analysis using In-Memory Processing", in

Global Journal of Computer Science and Technology (GJCST) Volume 17 issue 1: 21-27, 2017, ISSN 0975-4172

a. **GJCST** has been indexed by ProQuest, BASE, Pennsylvania Digital Library, Universität Karlsruhe, Ulrich's, JournalSeek Database, Education Resources Information Center, ERIC, Open J-Gate, Informatics Limited, Google Scholar, Bielefeld Academic Search Engine, ourGlocal, Harvester2, HeadKeys, WoTUG, ABCentral

(10) Manik Katyal, Parag Chhadva, Shubhra Wahi, and Jongwook Woo, "Big Data Analysis using Spark for Collision Rate near CalStateLA", in Global Journal of Computer Science and Technology (GJCST), Dec 2016, Volume 16 Issue 4: 1-8, ISSN 0975-4172

a. **GJCST** has been indexed by ProQuest, BASE, Pennsylvania Digital Library, Universität Karlsruhe, Ulrich's, JournalSeek Database, Education Resources Information Center, ERIC, Open J-Gate, Informatics Limited, Google Scholar, Bielefeld Academic Search Engine, ourGlocal, Harvester2, HeadKeys, WoTUG, ABCentral

(11) Bayan Alghuraybi , Krishna Marvaniya , Guojun Xia, **Jongwook Woo**, "Analyze NYC Taxi Data Using Hive and Machine Learning" in International Journal of Database Theory and Application, June 2016, Vol.9, No.6 (2016), pp.191-198, ISSN 2005-4270

a. **IJDTA** has been indexed by **Cabell** (also by**:** ProQuest, ULRICH, DOAJ, J-Gate, SCOPUS, EI Compendex)

(12) Jongwook Woo, "Information Retrieval Architecture for Heterogeneous Big Data on Situation Awareness", in International Journal of Advanced Science and Technology (IJAST), Science & Engineering Research Support soCiety (SERSC), Oct 2013, Volume 59, No 9, pp113-122, ISSN 2005-4238

a. **IJAST** has been listed in **Cabell**'s Directory of Publishing Opportunities in Management and Marketing since the 8th Edition (also listed in EBSCO, ProQuest, ULRICH, DOAJ, OpenJ-Gate)

(13) Jongwook Woo, DMKD-00150, "Market Basket Analysis Algorithms with MapReduce", Wiley Interdisciplinary Reviews Data Mining and Knowledge Discovery, Oct 28 2013, Volume 3, Issue 6, pp445-452, ISSN 1942-4795

a. **WIREs DMKD** belongs to **SCIE** (SCIENCE CITATION INDEX EXPANDED) that is the SCI expansion, which is the famous science journal index. It has Impact Factor: 1.422, ISI Journal Citation Reports © Ranking: 2012: 23/100 (Computer Science Theory & Methods); 48/115 (Computer Science Artificial Intelligence)

(14) **Jongwook Woo**, "Market Basket Analysis Algorithm on Map/Reduce in AWS EC2", in International Journal of Advanced Science and Technology (IJAST), Science & Engineering Research Support soCiety (SERSC), Sept 2012, Volume 46, No 3, pp25-38, ISSN 2005-4238

a. **IJAST** has been indexed by **Cabell** (also by**:** ProQuest, ULRICH, DOAJ, J-Gate, Cabell, SCOPUS, EI Compendex)

(15) Ricardo Sanchez, Megan Riddle, **Jongwook Woo** and Jamil Momand, "Prediction of reversibly oxidized protein cysteine thiols using the C4.5/J48 classifier and protein structure properties", in *Protein Science*, the Journal, March 2008, Volume 17, Issue 3, pp. 473-481, ISSN 0961-8368, Cold Spring Harbor Laboratory Press

- **Protein Science** belongs to SCIE (SCIENCE CITATION INDEX EXPANDED) that is the SCI expansion, which is the famous science journal index.

(16) "Wireless Financial Transaction Reporting System in m-Commerce", Jongwook Woo**,** Issues in Information Systems (IIS), Volume VIII, No. 2, 2007, pp. 103-106, ISSN 1529-7314

- **IIS** has been listed in **Cabell**'s Directory of Publishing Opportunities in Management and Marketing since the 8th Edition.

(17) Jongwook Woo, "The Comparison of J2EE and .NET for Enterprise Information Systems", For S/W reviews in Journal of Scalable Computing: Practices and Experience (SCPE), June 2007, pp131-140, Volume 8, No1, ISSN 1895-1767, Szkoła Wyższa Psychologii Społecznej (SWPS)

a. **SCPE** has been indexed in Scopus SciVerse, Thompson Reuters Emerging Sources Citation Index

(18) "Traversal Pattern Mining in Web Environment", MinSeok Jang, Weon-Goo Kim, Yon-Sik Lee, Jongwook Woo, *Lecture Notes in Computer Science* (*LNCS*), Dec 2005, Vol 3828/2005, pp. 801-805, ISSN 0302-9743, Berlin, Springer-Verlag.

- **LNCS** belongs to SCIE (SCIENCE CITATION INDEX EXPANDED) that is published by SPRINGER-VERLAG BERLIN and that is the SCI expansion, which is the famous science journal index.

(19) Jongwook Woo, Jean-Luc Gaudiot, Andrew L Wendelborn, "Alias Analysis in Java with Reference-Set Representation for High-Performance Computing", in *International Journal of Parallel Programming, IJPP*, February 2004, pp39-76, Volume 32, No1, ISSN 0885-7458, USA, Kluwer Academic Publishers

- **IJPP** belongs to SCIE (SCIENCE CITATION INDEX EXPANDED) that is published by SPRINGER-VERLAG BERLIN and that is the SCI expansion, which is the famous science journal index.

(20) Jongwook Woo, "Static Analysis for Java with Alias Representation Reference-Set in High-Performance Computing", Journal of Scalable Computing: Practices and Experience (SCPE), March 2003 (Published March 2005), pp131-145, Volume 6, No1, ISSN 1895-1767, Szkoła Wyższa Psychologii Społecznej (SWPS)

- Was Journal of Parallel and Distributed Computing Practices (PDCP), Volume 6, No1
- **SCPE** has been indexed in Scopus SciVerse, Thompson Reuters Emerging Sources Citation Index

Selected Proceedings and Thesis

(1) Dalyapraz Dauletbak, Junghoon Heo, Sooyoung Kim, Yeon Pyo Kim and, Jongwook Woo, "Scalable Traffic Predictive Analysis for Smart City using GPU in Big Data", KSII The 16th Asia Pacific International Conference on Information Science and Technology (APIC-IST) June 20-22 2021, pp144-148, ISSN 2093-0542

(2) Priyanka Purushu, Junghoon Heo, Sooyoung Kim, Yeon Pyo Kim and, Jongwook Woo, "Predictive Analysis of Transaction Fraud leveraging Big Data for Deep Learning", KSII The 16th Asia Pacific International Conference on Information Science and Technology (APIC-IST) June 20-22 2021, pp149-154, ISSN 2093-0542

(3) Shradha Shinde, Jay Joshi, Sowmya Mareedu, Yeon Pyo Kim, Jongwook Woo, "Scalable Predictive Time-Series Analysis of COVID-19: Cases and Fatalities", April 25 2021, arXiv:2104.11349

(4) Mohsen Alam, Benjamin Cevallos, Oscar Flores, Randall Lunetto, Kotaro Yayoshi, Jongwook Woo, "Yelp Dataset Analysis using Scalable Big Data", April 19 2021, arXiv:2104.08396

(5) Velma Jones, Kendra Keyse, Alfredo Melgoza, Karen Perez, Tammy Qamar, Jason Villalpando, Jongwook Woo, "Avocado Buying Trends in the United States Using SAC", April 10 2021, arXiv:2104.04649

(6) Priyanka Purushu, Jongwook Woo, "Financial Fraud Detection adopting Distributed Deep Learning in Big Data", KSII The 15th Asia Pacific International Conference on Information Science and Technology (APIC-IST) 2020, July 5 -7 2020, Seoul, Korea, pp271-273, ISSN 2093-0542

(7) Monika Mishra, Dalya Manatova, Jongwook Woo, "COVID-19 Data Statistics and Forecasting," KAUPA News Letter, vol. 20, no. 2, pp. 8-9, March 32 2020

(8) Monika Mishra, Mingoo Kang, Jongwook Woo, "Rating Prediction using Deep Learning and Spark", The 11th International Conference on Internet (ICONI 2019), Dec 15-18 2019, Hanoi, Vietnam

(9) Neha Gupta, Hai Anh Le, Maria Boldina, Jongwook Woo, "Predicting fraud of AD click using Traditional and Spark ML", KSII The 14th Asia Pacific International Conference on Information Science and Technology (APIC-IST) 2019, pp24-28, ISSN 2093-0542

(10) Dalyapraz Dauletbak, Jongwook Woo, "Traffic Data Analysis and Prediction using Big Data", KSII The 14th Asia Pacific International Conference on Information Science and Technology (APIC-IST) 2019, pp127-133, ISSN 2093-0542

   a. **Outstanding Paper Award** received

(11) Monika Mishra, Jaydeep Chopde, Maitri Shah, Pankti Parikh, Rakshith Chandan Babu, Jongwook Woo, "Big Data Predictive Analysis of Amazon Product Review", KSII The 14th Asia Pacific International Conference on Information Science and Technology (APIC-IST) 2019, pp141-147, ISSN 2093-0542

(12) Kunal Pritwani, Knox Wasley, and Jongwook Woo, "Big Data Analysis of World Development Indicators using Apache Spark", 2017 Pre-ICIS SIGDSA Symposium, Korea, Dec 2017

(13) Ruchi Singh**;** Yashaswi Ananth; Jongwook Woo, "Big Data Analysis of Local Business and Reviews", in The 19th International Conference on Electronic Commerce: ICEC 2017, Pangyo, Seongnam, Korea, August 17- 18, 2017

(14) Nillohit Bhattacharya and Jongwook Woo, "Airline Data Set Analysis using Big Data in Cloud Computing" in The 2017 Korea Society of Management Information Systems Spring Annual Conference (KMIS 2017), Chonnam University, Korea, June 6 - 9 2017

(15) Iksuk Kim, Deeksha Lakshmi , **Jongwook Woo**, "Analysis of U.S Movie Audience using Big Data" in ICCC International Digital Design Invitation Exhibition (ICCC 2014), p25-26, 2014

(16) **Jongwook Woo** and Kilhung Lee, "MapReduce Example with HBase for Association Rule", Future Information Technology, Lecture Notes in Electrical Engineering, Volume 276, 2014, pp 49-54, ISSN: 1876-1100

   a. The 8th FTRA International Conference on Future Information Technology (FutureTech 2013) paper is published at Lecture Notes in Electrical Engineering Book Series indexed by ISI Proceedings, EI-Compendex, SCOPUS, EI Compendex, MetaPress, Springerlink

(17) Chul Sung, **Jongwook Woo**, Matthew Goodman, Todd Huffman and Yoonsuck Choe, "Scalable, Incremental Learning with MapReduce Parallelization for Cell Detection in High-Resolution 3D Microscopy Data", Proceedings of the International Joint Conference on Neural Networks (IJCNN 2013), Aug 4-9, 2013, Dallas, Texas. pp 434-440

(18) **Jongwook Woo**, "Apriori-Map/Reduce Algorithm", The 2012 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA 2012), Las Vegas (July 16-19, 2012)

(19) **Jongwook Woo**, Siddharth Basopia, Yuhang Xu, Seon Ho Kim, "Market Basket Analysis Algorithm with no-SQL DB HBase and Hadoop", The Third International Conference on Emerging Databases (EDB 2011), Songdo Park Hotel, Incheon, Korea, Aug. 25-27, 2011

(20) **Jongwook Woo** and Yuhang Xu, "Market Basket Analysis Algorithm with Map/Reduce of Cloud Computing", The 2011 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA 2011), Las Vegas (July 18-21, 2011)

(21) Kanokwan Chansamorn, Milan Mijic, Tony Longson, **Jongwook Woo**, Eun-Young Elaine Kang, "Project and Asset Management System for Multi-Disciplinary Scientific Visualization Projects", The 2010 international Conference on Internet Computing (ICOMP 2010), Las Vegas (July 12-15, 2010)

(22) Jongwook Woo, "Alias Analysis for Java with Reference-Set Representation in High-Performance Computing*", PhD Thesis*, August 2001.

(23) Jongwook Woo, Je-Hak Woo, Isabelle Attali, Denis Caromel, Jean-Luc Gaudiot, Andrew L Wendelborn, "Alias Analysis for Exceptions in Java", *in Proceedings of Twenty-Fifth Australasian Computer Science Conference,* vol. 24, no. 1, IEEE Press, Jan. 2002. cited by 1

a. Reference for US Patent 7120898 - Intermediate representation for multiple exception handling models
US Patent Issued on October 10, 2006
Estimated Patent Expiration Date: **June 26, 2023**

(24) Jongwook Woo, Je-Hak Woo, Isabelle Attali, Denis Caromel, Jean-Luc Gaudiot, Andrew L Wendelborn, "Alias Analysis for Java with Reference-Set Representation*", in Proceedings of Eighth International Conference on Parallel and Distributed Systems, ICPADS 2001*, IEEE Computer Society Press, *pp 459-466,* June 2001.

(25) Jongwook Woo, Je-Hak Woo, Isabelle Attali, Denis Caromel, Jean-Luc Gaudiot, Andrew L Wendelborn, "Alias Analysis On Type Inference in Class Hierarchy in Java", *in Proceedings of Twenty-Fourth Australasian Computer Science Conference, ACSC 2001*, IEEE Computer Society Press, *pp 206-214,* Jan 2001.

(26) Je-Hak Woo, Jongwook Woo, Jean-Luc Gaudiot, "Alias Analysis in Java with Referred-set", *in Proceedings of Fourth International Conference on High Performance Computing in Asia-Pacific Region, volume 1, HPC-ASIA 2000*, IEEE Computer Society Press*, pp 485-494,* Dec 2000.

(27) Yongwha Chung, Jongwook Woo, Ram Nevatia, Victor K. Prasanna, "Load Balancing Strategies for Symbolic Vision Computations", *in Proceedings of Third International Conference on High Performance Computing, HiPC 1996,* IEEE Computer Society Press, *pp 263-269*, Dec 96.

(28) Youngkwan Cho, Ulrich Neumann, and Jongwook Woo, "Improved Specular Highlights with Adaptive Shading", *in Proceedings of Computer Graphics International, CGI 1996,* IEEE Computer Society Press, *pp 38-46*, June 1996.

OTHER PUBLICATIONS

Other Journal Papers

(1) Richa Kankarej, Piyush Giri, Pooja Sarang, **Jongwook Woo**, "Data Analysis using Hive and Map-Reduce on Persons Obtaining Lawful Permanent Resident Status in USA " in Journal of Science and Technology, Nov 2015, Volume 5, no 11, pp579-584, ISSN 2225-7217

(2) Jay Mehta and **Jongwook Woo**, "Big Data Analysis of Historical Stock Data Using Hive", in Journal of Systems and Software, August 2015, Vol. 5 No. 2, pp40-43, ISSN 2222-9833

(3) Nillohit Bhattacharya and **Jongwook Woo**, "Big Data Analysis of Airline Data Set using Hive", in Journal of Systems and Software, August 2015, Vol. 5 No. 2, pp22-26, ISSN 2222-9833

(4) Jongwook Woo, "Market Basket Analysis using Spark", in Journal of Science and Technology, April 2015, Volume 5, No 4, pp207-209, ISSN 2225-7217

(5) Deeksha Lakshmi, Iksuk Kim, **Jongwook Woo**, "Analysis of MovieLens Data Set using Hive", in Journal of Science and Technology, Dec 2013, Volume 3, no 12, pp1194-1198, ISSN 2225-7217

(6) **Jongwook Woo**, "Information Retrieval/Integration Systems for Heterogeneous Data on Situation Awareness", in Journal of Systems and Software, April 2012, Volume 2, No 4, pp141-146, ISSN 2222-9833, ARPN

(7) **Jongwook Woo** and MinSeok Jang, "The Comparison of WML, cHTML, and XHTML-MP in m-Commerce", in Journal of Software, Oct 2008, Volume 3, Issue 7, pp. 22-29, ISSN 1796-217X, Academy Publisher

Other Proceedings, Conference, Symposium, Workshops, Book Series, and Theses

(1) Shradha Shinde, Jay Joshi, Sowmya Mareedu, Yeon Pyo Kim and Jongwook Woo, "COVID-19: Forecasting Cases & Fatalities", The Eleventh Annual Post-ICIS KrAIS Research Workshop 2020, Virtual Conference, Dec 16 2020

(2) **Jongwook Woo**, "Apriori-Map/Reduce Algorithm for Association Rule", The 2012 US-Korea Conference on Science, Technology, and Entrepreneurship (UKC-2012), Computer Science, Information System, Industry Engineering, Management Science (CSI), Los Angeles (Aug 8-11, 2012)

(3) "Introduction to Cloud Computing", Jongwook Woo, the 10th KOCSEA (Korean Computer Scientists and Engineers Association in America) Technical Symposium, Las Vegas (Dec 18-19, 2009)

(4) "Comparing Open Source Web Services: gSoap and AXIS", **Jongwook Woo**, Wonwoo Ro, The 24th International Technical Conference on Circuit/Systems, Computers and Communications (ITC-CSCC 2009), Jeju Island, Korea (July 5-8, 2009)

(5) "Information Integration Model in e-Business", **Jongwook Woo**, Dong-Yon Kim, Wonhong Cho, MinSeok Jang, The 2009 international Conference on e-Learning, e-Business, Enterprise Information Systems, e-Government, and Outsourcing, Las Vegas (July 13-16, 2009)

(6) "e-Business Architecture with CMS and Search Engine", Jongwook Woo, The 2009 19th Annual KSEA South-Western Regional technology Conference (KSEA-SW 2009), Irvine, CA (Feb 7, 2009)

(7) "e-Business Architecture with Search Engine", Jongwook Woo, the 9th KOCSEA (Korean Computer Scientists and Engineers Association in America) Technical Symposium, VA (Oct 25-26, 2008)

(8) "The High Price of High Technology", Donald B. Hodges and **Jongwook Woo**, The 2008 international Conference on Frontiers in Education: Computer Science and Computer Engineering, Las Vegas (July 14-16, 2008)

(9) "e-Business Architecture with Search Engine", Jongwook Woo, The 2008 US-Korea Conference on Science, Technology, and Entrepreneurship (UKC-2008), Information Technology (IT), San Diego (Aug 14-17, 2008)

(10) "CMS in e-Business Applications", Pete Petathirapat and **Jongwook Woo**, The 2008 international Conference on e-Learning, e-Business, Enterprise Information Systems, e-Government, and Outsourcing, Las Vegas (July 14-16, 2008)

(11) "CMS in e-Business Architecture", Jongwook Woo, The 2008 18th Annual KSEA South-Western Regional technology Conference (KSEA-SW 2008), Pasadena, CA (Feb 9, 2008)

(12) "Introduction to Web Service Architecture for e-Business applications", Jongwook Woo, the 8th KOCSEA (Korean Computer Scientists and Engineers Association in America) Technical Symposium, Los Angeles, CA (Dec 14-15, 2007)

(13) "TGI on SOA", Jongwook Woo, The 2007 US-Korea Conference on Science, Technology, and Entrepreneurship (UKC-2007), Information Technology (IT), Washington DC (August 9-12, 2007)

(14) "Wireless Financial Transaction Reporting System in m-Commerce", Jongwook Woo, The 2007 International Associations for Computer Information Systems (**IACIS07**), Van Couver, Canada (Oct 3-6, 2007)

(15) "Integrated Information Systems Architecture in e-Business", Jongwook Woo, Dong-Yon Kim, Wonhong Cho, MinSeok Jang, The 2007 international Conference on e-Learning, e-Business, Enterprise Information Systems, e-Government, and Outsourcing, Las Vegas (June 26-29, 2007)

(16) "The enterprise Architecture in Integrated Information", Jongwook Woo, The 2007 17th Annual KSEA South-Western Regional technology Conference (KSEA-SW 2007), Pasadena, CA (Feb 10, 2007)

(17) "Cysteine Oxidation Prediction Program (COPP): An Algorithm that Predicts Oxidation Propensity of Protein Cysteine Thiols", R Sanchez, Jongwook Woo, Jamil Momand, The 20th Annual Symposium of The Protein Society & 20th Anniversary Celebration, San Diego, Volume 15 Suppl. 1, August 5-9 2006

(18) "e-Business application on JCR (Java Content Repository)", Jongwook Woo, The 2006 US-Korea Conference on Science, Technology, and Entrepreneurship (UKC-2006), Information Technology (IT), New Jersey (August 10-13, 2006)

(19) "Financial Transaction Reporting System in m-Commerce", Jongwook Woo, Dong-Yon Kim, Wonhong Cho, MinSeok Jang, The 2006 international Conference on e-Learning, e-Business, Enterprise Information Systems, e-Government, and Outsourcing (EEE'06/ISBN #:1-60132-006-X/CSREA), p85-96, Las Vegas (June 26-29, 2006)

(20) "The Introduction of JCR (Java Content Repository)", Jongwook Woo, The 16th Annual KSEA South-Western Regional Technology Conference, Los Angeles (March 04, 2006)

(21) "Traversal Pattern Mining in Web Environment", MinSeok Jang, Weon-Goo Kim, Yon-Sik Lee, Jongwook Woo, The 2005 Workshop on Internet and Network Economics (WINE2005) in **LNCS** (Lecture Notes in Computer Science), Hong Kong (Dec 15-17, 2005)

(22) "Computationally predicting the oxidation of a protein", Jongwook Woo, The 2005 US-Korea Conference on Science, Technology, and Entrepreneurship (UKC-2005), Information and Communication Technology Symposium (ICTS-1), Irvine, CA (Aug 11-13, 2005)

(23) "GVUI in VoiceXML", Minseok Jang and Jongwook Woo, The 2005 International Conference on Human-Computer Interaction, HCI'05, Las Vegas, Nevada (June 20-23, 2005)

(24) Jongwook Woo, "The Comparison of J2EE and .NET for e-Business", The 2005 International Conference on e-Business, Enterprise Information Systems, e-Government, and Outsourcing, EEE 2005, Las Vegas, Nevada (June 20-23, 2005)

(25) Jongwook Woo, "Data Stream Filtering Systems in XML", The 2004 International Conference on Parallel and Distributed Processing Techniques and Applications, PDPTA 2004, June 21-24

(26) Jongwook Woo, Seunghyup Ryu, Jaiyong Lee, Jaehoon Jeong, Jungsoo Park, HyongJoon Kim, "The Extended BGP Algorithm for Multihoming", *in Proceedings of International Techinical Conference on Circuits/Systems, Computers and Communications, ITC-CSCC 2003*, July. 2003

(27) Jongwook Woo, Seunghyup Ryu, Jaiyong Lee, Jaehoon Jeong, Jungsoo Park, "BGP Extension for Multihoming in IPv6", *in Proceedings of Eighteenth Korea Information Processing Society*, Nov. 2002

(28) Jongwook Woo, Seunghyup Ryu, Jaiyong Lee, "The Investigation of Load-Sharing Mechanisms among Site Exit Routers for Multihoming of IPv6", ETRI Technical Report, June 2002

(29) Jongwook Woo, "The Queuing Analysis for ATM Switching of Mixed CBR and VBR Traffics with priority", *Dissertation for M.S. Degree*.

(30) Joon-Ho Lee, Joong-Gyu Kim, JongWook Woo, MigNong Park, SangBae Lee, "Routing and Flow Control for Computer Communication Network", *Korea Research Development Institute*.

GRANTS

(1) Grants and partnership

- Received Google GCP Big Data AI Research Credit ($5,000) (Oct 2020 - Sept 2021)
- Received Databricks AWS Big Data AI Research Credit ($4,000) (Sept 2020 – Aug 2021)
- Received Amazon AWS Research Credit ($16,000) (May 2019 - April 2020)
- Received Oracle Cloud Research Credit ($65,000) (Aug 2018 - Sept 2021)
- Received Education Grants from Google Cloud Platform (Sept 2018, May 2018, Jan 2018)
- Received Amazon AWS Research Credit ($10,000) (Sept 2017 - Aug 2018)
- Received Microsoft Azure Research Grant ($20,000) (April 2017 - March 2018)
- Received Microsoft Azure Research Grant ($20,000) (Jan 2016 - Feb 2017)
- Received Amazon AWS in Education Research Grant ($5,000) (Nov 2015 - Oct 2016)
- Received IBM Academic Initiative Partnership and Educational Grant ($90,000) (April 2015 - March 2018)
- Updated Oracle Academic Partnership (March 2012 - March 2016)
- Received Windows Azure Educator Grant ($38,400) (March 2015 - June 2015)

- Received Amazon AWS in Education Coursework Grants ($3,000: March 2015 - June 2015)
- Received Windows Azure Educator Grant ($38,400) (Oct 2013 - July 2014)
- Received Amazon AWS in Education Research Grant ($10,000) (July 2012 - July 2014)
- Received Amazon AWS in Education Coursework Grants ($2,500: July 2012 - July 2013, $3,100: March 24 2011 – Feb 29 2012)
- Received Academic Education Partnership with Cloudera since June 2012
- Oracle Academy: Advanced Computer Science Membership (For CIS dept) Renewal on Sept 11 2012

(2) CalStateLA CBE funds
- Stipend Fund ($3,000, $2,000) in 2013, 2012
- Team Research Grants ($2000) in 2013 with Iksuk Kim and Freddy Lee in 2012 with Adam Huarng, Jose Perez

(3) $7,000 Grant Award (Dec 14 2011 – Jan 10 2012) from KITECH (Korean Institute of Industrial Technology) "International Expert Invitation Program"
- Educate and implement BigData Map/Reduce and NoSQL DB at Vanilla Breeze Inc to analyze users' behaviors

(4) $2,800 Grant Award (Oct 13 2010) from KISTI (Korea Institute of Science and Technology Information); "Map/Reduce Cloud Computing"; for Oct 2010 – Jan 2011

(5) Grant Award (Oct 26 2010) School of Business and Economics, CSULA "Integrating GIS and Socialization" amount $1,000

(6) ***Submitted*** (Aug 14 2008) NSF proposal titled "Creation of the Cysteine Oxidation Prediction Program" amount $771,252 ($257,084 x 3 yrs) for solicitation no: NSF 08-563

(7) ***Submitted*** (Feb 26 2008) MOU proposal titled "The Proposal for the Development of u-Space - using Service Oriented Architecture and
Data Oriented Architecture Integrated Platform and Integrated Data Service" To the Korea Ubiquitous Association (**KUA**) for 2008-2009

(8) ***Submitted*** (April 30 2007) grant proposal titled "Bioinformatics for Computer Majors" with the requested amount $94,350 To ***American Honda Foundation*** for 2007-2008

(9) ***Submitted*** (Oct 30 2006) grant proposal: Research Stipends from The Center For The Business Government of IBM for 2006-2007

(10) $4,012 Grant Seed Program Award from CalStateLA; for 2006-2007

(11) $1,940 Grant Seed Program Award from CalStateLA; 2006

(12) $3,880 Grant Seed Program Award from CalStateLA; 2005

(13) **Project ID: 2-30058**, $31,533 external Grant from Warner Brothers; "Multimedia Dynamic Web Development for e-Business", Aug-Dec 2004

(14) Submit an external Grant proposal "Hydrogen Peroxide Signaling" to NIH (National Institutes of Health) as a Co-Investigator for years 2005-2009 $1.2M

(15) $3,880 Grant Seed Program Award from CalStateLA; 2003

Awards / Entrustment

(1) Faculty Mentor Honoree of 2019 – 2020 at California State University Los Angeles
Message from the Dean of the College of Business and Economics, Dr. Tye Jackson: "Dr. Jongwook Woo has been a faculty member at Cal State LA for 18 years in the

College of Business and Economics' (CBE) Department of Information Systems at Cal State LA. He has successfully mentored students of which one received the best paper award at The 14th Asia Pacific International Conference on Information Science and Technology (APIC-IST 2019). Dr. Woo is a noted scholar and has published articles on big data and data science. Recently, his faculty-student team research received recognition. The research team created an interactive data visualization dashboard that forecasts the number of COVID-19 cases and deaths by region in the U.S. and around the world. Please join me in congratulating Dr. Jongwook Woo as this year's CBE's Faculty Mentor Honoree."

(2) Faculty Mentor for winning the Oral Presentation at the student symposium at the 27th Annual Student Symposium on Research, Scholarship, & Creative Activities of California State University Los Angeles: Megan Escobar and Alexander Bugarin, B.S. Computer Information Systems, "Visualizing Crime Statistics using Big Data Analytics on Hadoop", March 2019
(3) Teradata TUN 2019 & 2017 Faculty Scholarship **Winner** (http://www.teradatauniversitynetwork.com/Community/Scholarships/)
(4) Appreciation Award for Brain Scouting program by the president of NIPA (National IT Industry Promotion Agency) of Korea Government, Aug 30 2013
(5) Appreciation Award for Excellence service as the 39th President of KSEA-SC Chapter by the president of KSEA-SC (Korean-American Scientists and Engineers Association - Southern California), Dec 16 2011
(6) Letter of Entrustment for KOTRA KORUS FTA HELP DESK by KOTRA (Korea Trade Promotion Corporation) of Korea Government, June 6 2011

INVITED TALKS

(1) Invited Talk, "Scalable Predictive Analysis leveraging Big Data with GPU", Yonsei University, July 2 2021, Seoul, Korea
(2) Invited Talk, "Opportunity of Big Data AI in Korea-USA", STEP UP, KSEA, June 14 2021
(3) Invited Talk, "Teaching and Research of Big Data and AI @ CalStateLA", Databricks University Alliance, Jan 26 2021
(4) Invited Talk, "Teaching and Research of Big Data and AI using Databricks @ CalStateLA", Data+AI Summit Europe 2020, Nov 18 2020
(5) Invited Talk, "Introduction to Big Data and AI for Business Analytics and Prediction", Marketing Analytics Research Society, Oct 7 2020, California State University Los Angeles
(6) Invited Talk, "History and Trend of Big Data and AI" (https://www.youtube.com/watch?v=i-_tbZI0hiI), Seoul Cyber University, Dec 7 2019, Seoul, Korea
(7) Keynote Speaker, "The Importance of Open Innovation in AI era", Open Innovation Network I-CON 2019, Seoul, Korea, Dec 3 2019, Invited by The Ministry of Small Medium Business and Startups in Korea
(8) Keynote Speaker, "The History and Trend of Data Analysis and Prediction with Big Data and Artificial Intelligence", The 14th Asia Pacific International Conference on Information Science and Technology (APIC-IST), Beijing, China, June 23 2019
(9) Invited Talk, "History and Trend of Big Data and AI", Pittasoft, Seoul, Korea, July 15 2019
(10) Invited Speaker, "Big Data and Predictive Analysis", IDEAS Online Workshop Series, May 4 2019

(11)Invited Speaker, “Predictive Analysis of Financial Fraud Detection using Azure and Spark ML”, IDEAS SoCal Conf 2018, Los Angeles, Oct 20 2018
(12)Invited Talk, “Introduction to Big Data: Smart Factory”, Hyundai Steels, Korea, July 28 2018
(13)Keynote Speaker, “The Trend of Big Data Platform and its Use Cases”, The Summer Conference of Korea Society of Computer and Information (KSCI) 2017, Konkuk University Global Campus, Chungju, Korea, July 14th 2017
(14) “Big Data Introduction and Trend”, The 27th Annual KSEA: South Western Regional Conference (SWRC) 2017, Qualcomm, San Diego, Feb 25th 2017
(15) “The Trend of Big Data Platform and Open Data with its Use Cases”, Symposium on the High Performance Big Data Analysis Platform, Seoul, Korea, April 28th 2016
(16)“Introduction to Spark: Data Analysis and Use Cases in Big Data”, Engineering Colloquium Series at University of Bridgeport, CT, October 29 2015
(17) “Big Data Analysis and Industrial Approach using Spark”, UKC 2015 Atlanta, GA, July 30 2015
(18)“Introduction to Big Data on FinTech”, Financial Supervisory Service , Seoul, Korea, July 10th 2015
(19) “Introduction to Spark and its Data Analysis and Use Cases in Big Data”, KCC 2015, Jeju Island, Korea, June 24th 2015
(20) “Introduction to Big Data and Data Intensive Computing using Hadoop”, Big Dara Research S/W Division, ETRI, Korea, Feb 9th 2015
(21) “Introduction to Big Data and Use Cases using Hadoop”, Media Process Lab, Kwangwoon Univ, Korea, Feb 4th 2015
(22) “Introduction to Hadoop Big Data and Use Cases”, Criminal Information Dept, Dept of Justice, Korea, Dec 24 2014
(23) “Introduction to Big Data, MapReduce, its Use Cases, and the Ecosystems”, KIISE 14, Korea, Dec 19 2014
(24)“Introduction to Hadoop Big Data and Use Cases”, Kunkuk Univ, Korea, Nov 17 2014
(25) “Introduction to Hadoop Big Data”, Yonsei Univ, Korea, Nov 14 2014
(26)“Introduction to Hadoop Big Data and Use Cases”, Gachon Univ, Korea, Nov 12-13 2014
(27) “Introduction to Hadoop Big Data and Use Cases: Air and Flight”, Korean Airlines, Korea, Nov 8 2014
(28)“Hadoop Big Data Education at California State University Los Angeles”, Seoul Accord’14, Korea, Aug 28 2014
(29)“Introduction to Big Data and Use Cases using Hadoop”, Hanyang Univ, Korea, Aug 19 2014
(30) “Introduction to Big Data and Use Cases on Hadoop”, Seoul Tech Society Meetup, Korea, July 25 2014
(31) “Introduction to Big Data using Movie Data on Hadoop”, Dankook Univ, Korea, July 25 2014
(32) “Introduction to Big Data”, CoreTrust Inc, Korea, July 1 2014
(33) “Big Data and Advanced Data Intensive Computing”, Yonsei Univ, Korea, June 18 2014
(34)“Testing Big Data: Unit Test in Hadoop”, SSTC (Seoul Software Testing Conference) 2014, Seoul, Jan 15 2014
(35) “Big Data and Data Intensive Computing on Networks”, Intelligent Network Lab of KISTI (Korea Institute of Science and Technology Information), Daejon,Korea, Sept 23, 2013

(36)"Big Data and Data Intensive Computing: Use Cases", Data Mining Lab of LG R&D Center, Seoul, Korea, Sept 13 2013
(37)"Big Data and Data Intensive Computing: Education and Training", Graduate School of Communications & Art, Yonsei University, Seoul, Korea, Sept 5 2013
(38)"Big Data and Data Intensive Computing: Education and Training", Naver Lab, Bundang, Korea, Aug 30th 2013
(39)"Training of Big Data and Data Intensive Computing with Cloudera", MDI Lab, Electronic Engineering Dept, Seoul, Korea, Aug 22 2013
(40) "Augmented Reality, Big Data, Computer Graphics", Panel Leader/Chair, K-Creative Cinema and Technology Global Seminar , May 22 2013, Los Angeles Korean Cultural Center, Los Angeles, CA
(41) "Recent IT Development and Women ", KWiSE Annual Meeting, Oct 20th 2012, at Chapman University, CA
(42) "Case Study of Big Data Analysis using MapReduce on Hadoop ", Nov 11th 2012, at IMSC, USC, CA
(43) "Big Data Fundamentals in The Emerging New Data World ", Aug 17th 2012, at PIT, Samsung Electronics America, Santa Clara, CA
(44) "Market Basket Analysis Algorithm on Hadoop and NoSQL DB", Dec 2011 –Jan 2012
   a. KAIST, Daejon, Korea
   b. Yonsei University, Seoul, Korea
   c. Seoul National University of Science and Technology, Seoul, Korea
   d. SookMyung Women's University, Seoul, Korea
(45) "Server Site Web Development for E-Business in Java and .NET", SookMyung Women's University, Seoul, Korea, Aug 23 2003

MEDIA

(1) Invited Talk about COVID 19 and Post-Pandemic era using Big Data AI (https://bit.ly/3lAT0Zm) at Arirang TV in Korea, 08/27/2020
(2) Interviewed for Smart Factory using Big Data AI (https://www.youtube.com/watch?v=nKLTIChnv_8) with SBS TV on Aug 1 2018, a leading TV Channel of Korea
(3) Exposed at Segye Finance News (http://fn.segye.com/articles/article.asp…); Invited Talk about Big Data in Finance at FSS (금융감독원) in Korea - US counterpart: Security and Exchange Commission (http://www.sec.gov/)
(4) Interviewed with CBS, "L.A. Offers A Prime Job Market For Database Administrators", Feb 15 2015
(5) Interviewed with Cloudera for CAP program, Cloudera CAP program, Nov 12 2014
(6) Student Success at Cal State L.A., Deeksha Lakshmi (Information Systems): How she landed a job as a Big Data engineer with Yahoo! Inc, Aug 2013
(7) Write columns about Big Data at Korean Newspaper, Business Watch (http://www.bizwatch.co.kr/?c=9), Dec 1 2013
(8) Interviewed with Cloudera Media, Nov 2013 (will be published on Early 2014)
(9) CalStateLA spotlight about Big Data (http://www.calstatela.edu/univ/ppa/spotlight/archive/2013/csula-bigdata.php), Nov 2013

(10)In the newspaper articles about Advising Board of KOTRA US-Korea FTA at Koreatimes, Koreadaily, SportsSeoulUSA
(11) In the newspaper article about South Western Technology Conference and Mentoring of KSEA-SC on Jan 2011 at Koreatimes, Koreadaily, SportsSeoulUSA
(12) In the newspaper article about South Western Technology Conference of KSEA-SC on Feb 2010 at Koreatimes, Koreadaily, SportsSeoulUSA

Certification and Training

AI and Big Data

- *Certificate of competency of NVidia's DLIW: Fundamentals of DEEP LEARNING, Aug 26 2021, https://courses.nvidia.com/certificates/1b91fcd936b14e5d8ef236940e83a0f3*
- *Certificate of competency of NVidia's DLIW: Building Transformer-Based Natural Language Processing Applications, Aug 25 2021, https://courses.nvidia.com/certificates/d75fc22612504ec798fd63473251c102*
- *Certificate of competency of NVidia's DLIW: DEEP LEARNING FOR HEALTHCARE IMAGE ANALYSIS, Aug 21 2021, https://courses.nvidia.com/certificates/a7be223241a34026aea22042567ff750*
- *Certificate of competency of NVidia's DLIW: FUNDAMENTALS OF DEEP LEARNING FOR MULTI-GPUS, April 16 2021, Certificate ID: d2d512f3d0874e31bc4726ca3c448123*
- *Certificate of Completion, ML0120EN: Deep Learning with Tensor Flow, IBM Big Data University, Jan 12 2017*
- *DAT202.3x: Implementing Predictive Analytics with Spark in Azure HDInsight, BerkeleyX, Jan 9 2017*
- *DAT203x: Data Science and Machine Learning Essentials, Azure ML, BerkeleyX ,Nov 06 2015*
- *CS190.1x, Scalable Machine Learning, BerkeleyX, June 29 – July 31 2015*
- *CS100.1x, Introduction to Big Data with Apache Spark, BerkeleyX, June 1 – July 3 2015*
- *SAP Big Data Analytics (data mining) with SAP Predictive Analytics, May 28-29 2015*
- *Cloudera Training for Solr, April 7 - 9 2015*
- *Wolfram Training Data Science: Analysis and Presentation, March 19 2015*
- *Wolfram Training Mathematica, Feb 24 2015*
- *Cloudera Certified Administrator for Apache Hadoop CDH4, April 2013*
- *Cloudera Certified Developer for Apache Hadoop, Feb 2013*
- *Certificate of Training, Cloudera, "Introduction to Data Science: Building Recommender Systems", Dec 18-20th 2013*
- *Certificate of Training, Cloudera, "Cloudera Data Analyst Training: Using Pig, Hive, and Impala with Hadoop", Dec 16-18th 2013*
- *Completed a Coursera's online course, "Statistics One" by Andrew Coway, Princeton University, Dec 22 2013*
- *Certificate of 10gen Training Course, "M101: MongoDB Development", (Dec 24 2012)*
- *Certificate of Achievement, IBM Big Data University Training Course, "Text Analytics Essentials I", (Nov 14 2012)*

- *Certificate of Achievement, IBM Big Data University Training Course, "Hadoop Fundamentals I", (July 8 2012)*

NoSQL DB, Cloud Computing and ERP

- *Architecting on AWS, AWS Training Certificate of Completion, June 17 2016*
- *AWS Technical Essentials, AWS Training Certificate of Completion, June 14 2016*
- *CB030: Essentials of Couchbase NoSQL Technology, May 19 2016*
- *CB020: Fundamentals of NoSQL Database Management, May 16 2016*
- *DS320: DataStax Enterprise Analytics with Spark, DataStax, May 25 – 28 2015*
- *DS201: Cassandra Core Concepts, DataStax, May 11 – 14 2015*
- *DS 301: DataStax Enterprise Search Using Apache Solr, DataStax, April 27 – 29 2015*
- *DS 220: Data Modeling with DataStax Enterprise, DataStax, April 13 – 15 2015*
- *Cloudera Certified HBase for Apache Hadoop, Oct 2014*
- *Certificate of Training, Cloudera, "Cloudera Training for Apache HBase", Feb 3-6th 2014*
- *Certified SAP ERPSIM instructor (May 27 2011), Los Angeles, CA*
- *SAP CURRICULUM CONGRESS "Business Intelligence and NetWeaver" (March 11-12 2011) Monterey, CA*

Business Intelligence and Visualization

- *SAP Data Analysis with SAC, Jan 14 2021*
- *QlikView Developer v11.x, August 19 - August 21, 2015*
- *QlikView Designer v11.x, August 17 - August 18, 2015*
- *Data Modeling for Qlik Sense v1.x, August 12 - August 14, 2015*
- *Create Visualizations with Qlik Sense v1.x, August 10 - August 11, 2015*

Online Lecture

- *Quality Matters Certificate of Completion "Designing Your Blended Course" (Feb 11 2016)*

Geo, CMS, Middleware, e-Business, Programming Language

- *ESRI Certificate of Participation for a seminar "Spatial Inquiry Using Web-Mapping Tools" (April 30 2009)*
- *Content Server Core Developer of Fatwire Education Service Training (Jan 11 2008)*
- *IBM Rational Software Architect Workshop (Sept 2006)*
- *Day Communiqué Technical Training (Jan 2006)*
- *Bea WebLogic server Application Development Educational Service (July 2000)*
- *Bea WebLogic server Administration Educational Service (July 2000)*
- *Sun Certified Java Programmer for JDK-1.1 (July 1999)*