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DEPARTMENT OF COMPUTER SCIENCE
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EDUCATION

- Ph.D. University of California, Irvine, CA, 1998
  Department of Electrical Engineering and Computer Science.
- M.S. Western Illinois University, Illinois, 1994
  Department of Computer Science.
- B.S. Seoul National University, Seoul, Korea, 1985
  Department of Control and Instrumentation.

PROFESSIONAL EXPERIENCE

- Tenured Full Professor (2014 – Present)
  Department of Computer Science, California State University, Northridge (CSUN).
- Tenured Associate Professor (2009 – 2014)
  Department of Computer Science, California State University, Northridge (CSUN).
- Visiting Professor (2010 – 2011)
  Department of Electrical Engineering and Computer Science, University of California, Irvine (UC Irvine).
- Assistant Professor (2003 – 2009)
  Department of Computer Science, California State University, Northridge (CSUN).
- Researcher (2000 – 2003)
  Department of Electrical Engineering and Computer Science, University of California, Irvine (UC Irvine).
- Adjunct Researcher (2001 – 2002)
  Center of Biomedical Engineering, University of California, Irvine (UC Irvine).
- Postdoctoral Researcher (1999 – 2000)
  Department of Electrical Engineering and Computer Science, University of California, Irvine (UC Irvine).
- Graduate Student Researcher (1994 – 1998)
  Department of Electrical Engineering and Computer Science, University of California, Irvine (UC Irvine).
- System Engineer (1985 – 1991)
  LG Information and Telecommunication, Korea.

PUBLICATIONS

1. Sam Mikhak, Forrest Felsch, and Taehyung Wang, "Learning to Cool: State Space Models for Smarter Automobile AC Systems", *IEEE International Conference on Big Data (IEEE BigData 2026),* Phoenix, Arizona, December 14–17, 2026.
2. Hemanth Kumar Tulabandula, Kiranmayee Lokam, and Taehyung Wang, "AC Advisor – A Comparative Evaluation of Machine Learning and State Space Models for Automobile Air Conditioning Energy Prediction", *IEEE Annual Computing and Communication Workshop and Conference (IEEE CCWC 2026)*, Las Vegas, Nevada, January 5–7, 2026.
3. Neha Ananthavaram and Taehyung Wang, "Energy Efficiency for Automobile A/C Systems Using Machine Learning Algorithms", *International Conference on Machine Learning and Applications (ICMLA)*, Boca Raton, Florida, December 3–5, 2025.

4. Joshua Weg, Taehyung Wang, and Li Liu, "Interpretable AI-Generated Video Detection using Deep Learning and Integrated Gradients", *International Conference on Applied Human Factors and Ergonomics (AHFE 2025)*, Orlando, Florida, July 26–30, 2025.
5. Laila Miles Kaddoura, Alexis Fernandez, Erin Brown, Neha Ananthavaram, and Taehyung Wang, "Machine Learning for Fuel Consumption and Emissions Analysis: Impact of Vehicle Air Conditioning Systems", *IEEE Annual Computing and Communication Workshop and Conference (IEEE CCWC 2025)*, Las Vegas, Nevada, January 6–8, 2025.
6. Laila Miles Kaddoura, Alexis Fernandez, Erin Brown, Neha Ananthavaram, and Taehyung Wang, "Machine Learning-Based Correlation Analysis of Fuel Consumption and Automobile Air Conditioning System Usage", *IEEE International Conference on Big Data (IEEE BigData 2024),* Washington, DC, December 15–18, 2024.
7. Adel Tazhibi, Nathan Dong, Kavyalata Kothari, and Taehyung Wang, "Energy Prediction for Automobile Air Conditioning Systems", *IEEE International Conference on Big Data (IEEE BigData 2024),* Washington, DC, December 15–18, 2024.
8. Nicholas Clayton and Taehyung Wang, "Controlling a Prosthetic Limb via Interpreting Arbitrary Signals using a Deep Learning Technique," *IEEE International Conference on Transdisciplinary AI (TransAI 2023)*, Laguna Hills, California, September 25–27, 2023.
9. Michael Williamson and Taehyung Wang, "Leveraging Differences in Entropy for Password Generating Models," *IEEE International Conference on Transdisciplinary AI (TransAI 2022)*, Laguna Hills, California, September 19–21, 2022.
10. Rudri Mahesh Oza, Angelina Geisen, and Taehyung Wang, "Traffic Sign Detection and Recognition Using Deep Learning," *IEEE International Conference on Artificial Intelligence for Industries (ai4i 2021)*, Virtual, September 20-22, 2021.
11. Akshay Shukla, Lousia Manoael, and Taehyung Wang, "Hybrid and Ensemble-Based Personalized Recommender System - Solving Data Sparsity Problem," *IEEE International Conference on Transdisciplinary AI (2021 TransAI)*, Virtual, September 20-22, 2021.
12. Christoph Fabritz, Mohammed Abdelrahim, Steven Wirsz, and Taehyung Wang, "Open Specification for Indoor-Navigation," *International Workshop on Semantic Multimedia Computing (SMC 2017)*, San Diego, California, January 30–February 1, 2017.
13. Junghoon Shin, Sangjun Lee, and Taehyung Wang, "Semantic Patent Analysis System based on Big Data," *IEEE International Conference on Semantic Computing (ICSC 2017)*, San Diego, California, January 30–February 1, 2017.
14. Taehyung Wang, Astushi Kitazawa, and Phillip Sheu, "Semantic Software Engineering," Encyclopedia with Semantic Computing, Vol. 1, No. 1 (2017).
15. Mohammed Abdelrahim, Carlos Merlosy, and Taehyung Wang, "Hybrid Machine Learning Approaches - A Method to Improve Expected Output of Semi-structured Sequential Data," *IEEE International Conference on Semantic Computing (ICSC 2016)*, Laguna Hills, California, February 3–5, 2016.
16. David Khanaferov, Christopher Luc, and Taehyung Wang, "Social Network Data Mining using Natural Language Processing and Density Based Clustering," *IEEE International Conference on Semantic Computing (ICSC 2014)*, Newport Beach, California, June 16–18, 2014.
17. Junghoon Shin, Sangjun Lee, and Taehyung Wang, "Semantic Approach for Identifying Harmful Sites using Link Relations," *IEEE International Conference on Semantic Computing (ICSC 2014)*, Newport Beach, California, June 16–18, 2014.
18. Jennifer Kim, Taehyung Wang, and Sang Tae Bae, "A Survey of Big Data Technologies and How Semantic Computing Can Help," *International Journal of Semantic Computing*, vol. 8 no. 1, March 2014, pp. 99 – 117.
19. Chanmin Park and Taehyung Wang, "Big Data and NSA Surveillance - Survey of Technology and Legal Issues," *IEEE International Symposium on Multimedia (ISM 2013)*, Anaheim, California, December 9–11, 2013.

20. Ted Garcia and Taehyung Wang, "Analysis of Big Data Technologies and Methods - Query Large Web Public RDF Datasets on Amazon Cloud Using Hadoop and Open Source Parsers," *IEEE International Conference on Semantic Computing (ICSC 2013)*, Irvine, California, September 16–18, 2013.
21. Chanmin Park, Seunghyun Kim, and Taehyung Wang, "Multimedia Copyright Protection on the Web - Issues and Suggestions," *IEEE International Symposium on Multimedia (ISM 2012)*, Irvine, California, December, 2012.
22. Min Kyo Chung, Taehyung (George) Wang, and Phillip Sheu, "Folksonomic Approach to Video Summarization," *Online Information Review*, Emerald, vol. 35. no. 4. 2011.
23. Wooju Kim, June S. Hong, Taehyung (George) Wang, Myungjin Lee, and Hak-Jin Kim, "Mathematical Constraint Knowledge into the Semantic Web by a Semantic Web Constraint Language," a chapter of the book entitled *Introduction to the Web Semantic: Concepts, Technologies and Applications*, iConcept Press, 2011.
24. Myungjin Lee, Wooju Kim, and Taehyung (George) Wang, "An Explorative Association-Based Search for the Semantic Web," *IEEE International Conference on Semantic Computing (ICSC 2010)*, Pittsburgh, Pennsylvania, September 22–24, 2010.
25. ChengZhi Xu, Peng Liang, Taehyung (George) Wang, Qi Wang, and Phillip C-Y, Sheu "Semantic Web Services Annotation and Composition based on ER Model," *IEEE International Workshop on Ubiquitous and Mobile Computing (UMC 2010)*, Newport Beach, California, June 7–9, 2010.
26. Christopher N. Gutierrez, Gautam Kakani, Ramesh C. Verma, and Taehyung (George) Wang, "Digital Watermarking of Medical Images for Mobile Devices," *IEEE International Workshop on Ubiquitous and Mobile Computing (UMC 2010)*, Newport Beach, California, June 7–9, 2010.
27. Seung-Hyun Kim, Craig Dunham, Suryo Muljono, Albert Lee, and Taehyung (George) Wang, "Discovery of Association Rules in National Violent Death Data Using Optimization of Number of Attributes," *World Congress on Computer Science and Information Engineering (CSIE 2009)*, Los Angeles/Anaheim, California, March 31–April 2, 2009.
28. Jordan Yelloz and Taehyung (George) Wang, "Optimization and Load Balancing of the Semantic Tagging and Searching System," *IEEE International Workshop on Semantic Computing and Applications (IWSCA 2008)*, Incheon, Korea, July 10–11, 2008.
29. Taehyung (George) Wang, Diane Schwartz, and Robert Lingard, "Assessing Student Learning in Software Engineering," *The Journal of Computing Science in Colleges*, vol. 23, no. 6, June 2008, pp. 239 – 248.
30. Joel Hickman, Gina Hope, and Taehyung (George) Wang, "Data Attribute Selection with Genetic Programming," *International Conference on Information Society (i-Society 2007)*, Merrillville, Indiana, October 7–11, 2007.
31. Gina Hope, Taehyung (George) Wang, and Shan Barkataki, "Convergence of Web 2.0 and Semantic Web: A Semantic Tagging and Searching System for Creating and Searching Blogs," *IEEE International Conference on Semantic Computing (ICSC 2007)*, Irvine, California, September 17–19, 2007.
32. Taehyung (George) Wang, Phillip C-Y Sheu, Atsushi Kitazawa, and Hiroshi Yamaguchi, "Database Language," *Encyclopedia of Electrical & Electronics Engineering*, John Wiley & Sons, 2007.
33. Fei Xie, Haitao Gong, Donghua Deng, Shu Wang, Taehyung (George) Wang, Jicheng Hu, and Chen-Yu Sheu, "Integrating Semantic Web Services for Declarative Accesses in Natural Language," *IEEE Eighth International Symposium on Multimedia (ISM 2006)*, San Diego, California, December, 2006.
34. Ramiro Ropez, Taehyung (George) Wang, and Chen-Yu Sheu, "Information and Process Management System for Physical Therapy," *C.V. Ramamoorthy Workshop on Advances in Computer Science and Engineering (RAM 2006)*, Berkeley, California, May 2006.
35. Chris Germano, Taehyung (George) Wang, and Akira K. Onoma, "Framework and Network Based Multimedia Object Management Environment," *IEEE International Symposium on Multimedia (ISM 2005)*, Irvine, California, December, 2005.

36. Taehyung Wang and Wei Chang, "Automatic Association Rule Generation: from a Cognitive Informatics Perspective," *US - Korea Conference on Science, Technology & Entrepreneurship (UKC2005)*, Irvine, California, August 2005.
37. Wei Chang and Taehyung Wang, "Automatic Multi-Dimensional Association Rule Generation for Relational Data Set," *IEEE International Conference on Cognitive Informatics (ICCI 2005)*, Irvine, California, August 2005.
38. D. Deng, P. C.-Y. Sheu, Taehyung Wang, and Akira K. Onoma, "Model-based Testing and Maintenance," *IEEE International Symposium on Multimedia Software Engineering (MSE 2004)*, Miami, Florida, December 13–15, 2004.
39. D. Deng, P. C.-Y. Sheu, Taehyung Wang, H. Maezawa, F. Tsunoda, and Akira K. Onoma, "DPSSEE: A Distributed Proactive Semantic Software Engineering Environment," *IEEE International Symposium on Multimedia Software Engineering (MSE 2003)*, Taichung, Taiwan, December 10–12, 2003.
40. Moon Hae Kim, K.H. (Kane) Kim, Yunmook Nah, Joonwoo Lee, Taehyung Wang, Jonghoon Lee, and Young Kyu Yang, "Distributed Adaptive Architecture for Managing Large Volumes of Moving Items," *IEEE International Conference on Integrated Design and Process Technology (IDPT 2003)*, Austin, Texas, December 3–5, 2003.
41. Yunmook Nah, K.H.(Kane) Kim, Taehyung Wang, Moon Hae Kim, Jonghoon Lee, and Young Kyu Yang, "A Cluster-based TMO-structured Scalable Approach for Location Information Systems," *IEEE International Workshop on Object-oriented Real-time Dependable Systems (WORDS 2003F)*, IEEE CS Press, Capri Island, Italy, October 1–3, 2003.
42. Yunmook Nah, Moon Hae Kim, Taehyung Wang, K.H. (Kane) Kim, and Young Kyu Yang, "TMO-structured Cluster-based Real-time Management of Location Data on Massive Volume of Moving Items," *IEEE Workshop on Software Technologies for Future Embedded Systems*, IEEE Press, Hakodate, Japan, May 2003.
43. Yunmook Nah, K.H. (Kane) Kim, Taehyung Wang, Moon Hae Kim, Young Kyu Yang, and Jong Hun Lee, "Cluster-based Real-time Location Data Server Architecture," *KISS SIGDB Database Research*, vol. 18, no. 4, December 2002.
44. George (Taehyung) Wang, Fei Xie, Fumihiro Tsunoda, and Akira K. Onoma, "Web Search with Personalization and Knowledge," *IEEE International Symposium on Multimedia Software Engineering (MSE 2002)*, Newport Beach, California, December 11–13, 2002.
45. Taehyung Wang and Phillip C.-Y. Sheu, "An Object-Oriented BSP Tree Algorithm for Hidden Surface Removal," *International Journal of Imaging and Graphics*, vol. 2, no. 3, July 2002, pp. 395–411.
46. S. Ohara, M. Hui, Taehyung Wang, F. Tsunoda, P. C.-Y. Sheu, and Raymond Paul, "A Software Test and Evaluation Environment Based on Longitudinal Database," *International Journal of Software Engineering and Knowledge Engineering*, vol. 12, no. 3, June 2002, pp. 223–244.
47. S. Ohara, M. Hui, Taehyung Wang, F. Tsunoda, P. C.-Y. Sheu, and Raymond Paul, "Object Testing in ITEE," *IEEE International Workshop on Object-oriented Real-time Dependable Systems (WORDS 2002)*, San Diego, California, January 7–9, 2002.
48. Phillip C-Y Sheu, Brian Cummings, Carl Cotman, Charlie Chubb, L. Hu, Taehyung Wang, Julene Johnson, Scott Mobley, Tom Sitch, and Y. Inagaki, "An Object Relational Approach to Biomedical Database," *International IEEE Symposium on Bio-Informatics and Biomedical Engineering (BIBE 2000)*, Washington, D.C., November 8–10, 2000.
49. Taehyung Wang and P. C-Y. Sheu, "An Object-Oriented Approach to Shadow Generation in Computer Graphics," *International Journal of Tools with Artificial Intelligence*, vol. 9, no. 3, September 2000, pp. 321–342.
50. Meng Hui, Soichiro Ohara, Linhua Hu, Taehyung Wang, Phillip C-Y Sheu, and Fumihiro Tsunoda, "Software Test & Evaluation with Longitudinal Data," *World Conference on Integrated Design and Process Technology (IDPT 2000)*, Dallas, Texas, June 4–8, 2000.

51. Soichiro Ohara, Linhua Hu, Meng Hui, Taehyung Wang, Phillip C-Y Sheu, and Fumihiro Tsunoda, "A Database Approach to Testing and Evaluating of Object-Oriented Programs," *IEEE Computer Society International Workshop on Object-oriented Real-time Dependable Systems*, Monterey, California, November 1999.
52. Taehyung Wang and Phillip C.-Y. Sheu, "An Object-Oriented Approach to Visual Database," *IEEE Circuits and Systems Newsletter*, vol. 10, no. 1, March/April 1999, pp. 1, 4-5, 10.
53. M. Xu, Taehyung Wang, P. Sheu, C. Ramamoorthy, S. Ohara, and A. K. Onoma, "Using an Object-Relational Knowledge Base for Software Testing," *IEEE Symposium on Application-Specific Systems and Software Engineering and Technology*, Richardson, Texas, March 1999.
54. Taehyung Wang and Phillip C.-Y. Sheu, "An Efficient Methodology for Constructing and Managing a 3-D World," *IEEE Computer Society International Workshop on Object-oriented Real-time Dependable Systems*, Santa Barbara, California, January 1999.
55. Taehyung Wang, Phillip C.-Y. Sheu, Brian Cummings, and Carl Cotman, "BioCompose: An Object Relational Database for Brain Aging Research," *IEEE International Symposium on Reliable Distributed Systems*, West Lafayette, Indiana, October 1998.
56. Taehyung Wang, Phillip C.-Y. Sheu, and Carl Cotman, "Active Rule Processing in The BioCompose Database," *IEEE International Symposium on Object-oriented Real-time Distributed Computing*, Kyoto, Japan, April 1998.
57. Soochan Hwang, Sang-Young Cho, Taehyung Wang, and Phillip C.-Y. Sheu, "A Fast 3-D Visualization Methodology Using Characteristic Views of Objects," *International Journal of Software Engineering and Knowledge Engineering*, vol. 8, no. 1, March 1998, pp. 97–114.
58. Taehyung Wang, Phillip C.-Y. Sheu, C. Cotman, and C. Chubb, "Parallel/Distributed Simulation with the COMPOSE Object-Relational Database," *Proceedings of IEEE Workshop on Application-Specific Software Engineering and Technology*, Richardson, Texas, March 1998.
59. Taehyung Wang and Phillip C.-Y. Sheu, "An Object-Oriented Approach to Visual Database," *IEEE Computer Society International Conference on Tools with Artificial Intelligence*, Newport, California, November 1997.
60. Taehyung Wang, Phillip C.-Y. Sheu, and Soochan Hwang, "An Object-Oriented Shadow Generation Algorithm for Real-Time Application," *IEEE Computer Society International Workshop on Object-oriented Real-time Dependable Systems*, Newport, California, February 1997.
61. J. Song, Taehyung Wang, S. Hwang, P. Sheu, D. Slater, G. Healey, and C. Cotman, "An Object-Oriented Biological Image Database for Cells from Histological Brain Sections," *World Conference on Integrated Design and Process Technology*, Austin, Texas, December 1996.
62. Taehyung Wang, P. Sheu, and Donald P. Yu, "An Object-Oriented Depth-Sorting Method for Displaying 3-D Scenes," *IEEE International Conference on Circuits and Systems Science*, Shanghai, China, June 1996.
63. Soochan Hwang, Sang-Young Cho, Taehyung Wang, and Phillip C.-Y. Sheu, "A Fast 3-D Visualization Methodology Using Characteristic Views of Objects," *International Conference on Software Engineering and Knowledge Engineering*, Lake Tahoe, California, June 1996.

GRANTS

1. Faculty Advisor, "Applying Data Science on Energy-Efficient Cluster Systems and Applications," NSF REU, $402,802, 2023–2025.
2. Co-PI, "Data Science Program with Career Support and Connections to Industry," NSF, $838,157, 2019 – 2022.
3. Co-PI, "Expanding the Pipeline: Training Future Professionals with Accessibility Mindset," Disability Communications Fund (DCFund), $99,000, 2018 – 2019.
4. PI, "Assisting Patients' Diabetes Treatment Through an Adaptive Notification Framework," Medtronic MiniMed Grant, $51,889, 2014 – 2016.

5. PI, "Knowledge-based Testing and Evaluation Environment for Insulin Pump Software," Medtronic MiniMed Grant, $33,539, 2005 – 2007.
6. PI, "Bioinformatics Framework: Semantic Integration of Heterogeneous and Distributed Bioinformatics Databases and Agent-based Information Retrieval," CSUN Competition for Research, Scholarship and Creative Activity, 2005, $4,363 (3 units reassignment time for Spring 2005).

PROFESSIONAL ACTIVITIES

Membership: IEEE (Institute of Electrical and Electronics Engineers) Computer Society, IEEE Computer Society Semantic Computing Technical Committee.

1. Co-organizer, IEEE International Conference on Artificial Intelligence & Virtual Reality, 2018 – 2024.
2. Co-organizer, IEEE International Conference on Robotic Computing, 2018 – 2023.
3. Co-organizer, IEEE International Conference on Transdisciplinary AI, 2018 – 2023.
4. Co-organizer, IEEE International Conference on Multimedia Big Data, 2017 – 2023.
5. Co-organizer, IEEE International Conference on Semantic Computing, 2007– 2024.
6. Co-organizer, IEEE International Symposium on Multimedia, 1999 – 2023.