Beiyu Lin

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Summary of Qualifications

- I do not require visa sponsorship.
- Data mining researcher with over 10 years of experience in machine learning and data science. Proven ability to lead teams and develop innovative solutions that have a significant impact on business results. Skilled in statistical modeling, and machine learning. Worked with multi-disciplinary teams both in academia and industries (such as MapLarge and Droisys)
- From 2020, **mentored 25 undergraduates, 5 M.S., and 8 Ph.D. students** on research projects and developed novel ML algorithms for sensor and dialogue data with **25** publications (topics ranging from transportation to healthcare) with **3 awards**, such as **Best Applied Data Science Paper Award** from top-tier (rank A) conference.
- Secured a total **awarded funding amount $747,133.0** with **my part awarded $409,105.0** as the PIs and Co-PIs (including **funding from Google, NSF, and US Air Force**).
- Taught courses of **Data Structure, Machine Learning**, Data Mining, and developed new courses for undergraduate and graduate students.
- Organized and served on multiple top-tier conferences, workshops, and journals as session chair, program committee.

Positions

University of Oklahoma Jan.2024-Now

Tenure-Track Assistant Professor *Norman, OK*

- **Grant**: Co-PI Automated Model Creation from SysML Documentation, Air Force, **$100,000**, etc.
- **Mentoring and Team Deliveries**: Recruited and mentored 4 Ph.D. students; Within 6 months with fresh new first-year Ph.D. students, accepted *3* full papers, *5* student abstracts; additionally submitted *6* full papers and *2* short papers; 1 Ph.D. student won Best Student Presentation Runner Up at DSAA'24 student forum; 3 awarded Ph.D. students with travel award from DSAA'24 (funded by NSF and Journal of AI); 2 awarded Ph.D. students with College of Engineering PhD Recruitment Excellence Fellowship; 2 awarded undergraduate students for summer research fellowship from College of Engineering.
- **Courses Taught**: Data Structures, Machine Learning Fundamentals, AI for Healthcare.
- Worked with multi-disciplinary teams from both academia and and industry companies (such as MapLarge).

University of Nevada Aug.2021-Dec.2023

Tenure-Track Assistant Professor *Las Vegas, NV*

- **Grant** total amount **$609,133.0**, including both internal and external grants funded by agencies such as Google and NSF; **Worked** closely with centers and corporations and industry companies (Droisys Inc) to solve the practical problems that are critical to them; **Mentored** 23 undergraduates, 9 graduates, 1 postdoc, and 2 high schoolers on research projects; **Taught** Data Structures; Data Mining; Mining IoT Data.

University of Texas Aug. 2020-July 2021

Tenure-Track Assistant Professor *Rio Grande Valley, TX*

- **Grant** total amount **$18,000** from Google; **Taught** Computer Science I (C++); **Mentored** and co-advising multiple undergraduate and graduate students.

Dell EMC Summer 2019

Software Engineer Intern *Seattle, WA*

- Wrote an analytic application of sensor data from cars in Brisbane, Australia. This application ingested streaming data, analyzed and predicted the traffic flow. The visualization is an hourly-based heat-map with location markers. When users click a marker, a bar chart will pop up with the predicted traffic flow.

Honeywell Summer 2018

Software Engineer Intern *Atlanta, GA*

- Worked on the Honeywell Aerospace Development Team for Low Altitude Authorization and Notification Capability Unmanned Aircraft System Service Supplier. Used Python and JavaScript to develop Honeywell USS Product, including developing data/user interface and authorization service. Helped out other projects, including flight plane engine, edge to cloud, memory leak and dashboard.

Education

Washington State University 2016-2020

PhD, Computer Science *Pullman, WA*

- Thesis Topic: Population-level behavior analysis based on smart environment sensor data

Washington State University 2013-2015

M.S. in Math *Pullman, WA*

Stony Brook University 2011-2013

M.S. in Applied Math *Stony Brook, NY*

Shanghai Maritime University 2007-2011

B.S. in Math and Applied Math *Shanghai, China*

Selected Publications

2025 Ahsan Bilal, **Beiyu Lin**. "Online Reinforcement Learning- based Retrieval-Augmented Generation (OnRL-RAG): Real-Time Personalized Mental Health Dialogue System", submitted to JICAI'2025.

2024 Ramu Gautam, **Beiyu Lin**, and Mei Yang. "Few-Shot Learning for Detecting Affective States from Keyboard and Mouse Data." IEEE 11th International Conference on IEEE Data Science and Advanced Analytics (DSAA), 2024

2024 Theo Gueuret, **Beiyu Lin**, et al. "SlideWin: Integrating Machine Learning with Human Knowledge for Auditory Scene Recognition with Limited Annotated Data", Sensors.

2023 Katherine Wuestney, **Beiyu Lin**, Diane Cook, Roschelle Fritz. "Modeling Human Frailty with a Smart Home-Based Approximation of Entropy", rapid-fire oral presentation, ACM-BCB'23.

Selected Honors and Awards

2022 People Choice Award for Young Professional Poster Competition, IEEE Rising Stars.

2021 Best Applied Data Science Paper Award, SIAM International Conference on Data Mining (SDM).

2019 2^{nd} Place, 3-Minute Thesis Competition, Voiland College of Engineering & Architecture.

2018 Our paper was highlighted at IEEE Journal of Biomedical and Health Informatics (impact score 6.98).

2014 Award for Excellence Teaching Assistant (a university-wide), Graduate & Professional Students Association.

2011 Award for Outstanding Undergraduate Thesis, Shanghai Maritime University.

Selected Scholarships

2020 Knowledge Discovery and Data Mining (KDD) (student registration award funded by NSF and SIGKDD).

2019 ACM-IMS Interdisciplinary Summit on the Foundations of Data Science (funded by NSF), CA.

2019 Analytics and Data Summit (registration fee was funded by Oracle Academy), CA.

2019 Strata Data Conference (funded by O'Reilly Media), CA.

2018 Google I/O, Mountain View, CA.

2017 Google Summer of Code Mentor Summit, Sunnyvale, CA.

2015 Mathematical Science Research Institute: Summer School on Incompressible Fluid Flows, CA.