Yuxiao Qu

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Education

Carnegie Mellon University Aug 2023 - Present
Master of Science in Machine Learning Pittsburgh, PA

University of Wisconsin - Madison Sep 2020 – Dec 2022
Bachelor of Science in Computer Science and Mathematics Madison, WI

The Chinese University of Hong Kong Sep 2017 – May 2020

Skills & Courses

Programming Language: Python, C/C++, Java, JavaScript, SQL, React, Linux, Django, LaTeX, GitHub, GCP, Jira
Courses: Reinforcement Learning, Algorithms, Machine Learning, Computer Graphics, Computer Vision, Operating Systems, Computer Networks, Robotics, Numerical Analysis, Probability, Linear Algebra, Discrete Mathematics

Work Experiences

Morgridge Institute for Research Apr 2023 – Aug 2023
Research Software Engineer Madison, WI

- Enhanced osdf-client's resilience for diverse URL schemes, slow data transfers, and improper job ads
- Created a go-based namespace server and CLI tool, gaining expertise in Flask, databases, and Kubernetes
- Refined URL extraction for broader scenarios and heightened accuracy
- Engineered a Q & A system using LLM, elevating interactivity and user-friendliness of digital resources

Last Lock, Inc. Sep 2021 – May 2022
Software Engineer (Part-time) Madison, WI

- Designed and devised a real-time smart lock dashboard using React.js, MongoDB, and NodeJS

Teaching Experience

Undergraduate Teaching Assistant University of Wisconsin – Madison

- COMP SCI 577: Introduction to Algorithms (Honor Session) Fall 2022
- COMP SCI 537: Introduction to Operating Systems Fall 2022

Research Experience

Simulation of the Connected and Automated Driving Systems (CADS) Sep 2021 – Jan 2022
Supervisor: Professor Bin Ran Traffic Operations and Safety Laboratory, University of Wisconsin – Madison

- Constructed a Deep Q-Learning model to find optimal movement trajectory for vehicles

Telecare Systems Design Sep 2020 – Sep 2021
Supervisor: Professor Bilge Mutlu People and Robots Laboratory, University of Wisconsin – Madison

- Created an agent providing voice-based and touch-based interactions for elderly people on Google smart display

Saving Computation by Slicing Neural Networks Using SVM Jun 2020 – Sep 2020
Supervisor: Professor Anand Sarwate Department of Electrical and Computer Engineering, Rutgers

- Analyzed intermediate data of neural networks and built a SVM to do binary classification for early stopping

Generating Adversarial Examples in Text Classification Jun 2019 – Sep 2019
Supervisor: Professor Michael R. Lyu Department of Computer Science and Engineering, CUHK

- Attacked state-of-the-art text classifiers via white-box and black-box methods and compared the results
- Awarded Faculty 2019 Summer Research *Best Project Award* out of more than 40 participants

Publications

- Nicholas Corrado, **Yuxiao Qu**, Josiah P. Hanna. “Simulation-Acquired Latent Action Spaces for Dynamics Generalization”, Proceedings of Machine Learning Research (PMLR), 2022.
- Yaxin Hu, **Yuxiao Qu**, Adam Maus, Bilge Mutlu. “Polite or Direct? Conversation Design of a Smart Display for Older Adults Based on Politeness Theory”, ACM CHI Conference on Human Factors in Computing Systems, 2022.
- Wei Li, **Yuxiao Qu**, Gengjie Chen, Yuzhe Ma, Bei Yu, “TreeNet: Deep Point Cloud Embedding for Routing Tree Construction”, IEEE/ACM Asian and South Pacific Design Automation Conference (ASPDAC), 2021. (Best Paper Award)

Awards

- 2021 ICPC North Central North American Regional Champion (Ranked 15th out of 96 teams regionwide)
- Dean's List on Fall 2020, Spring 2021, Fall 2021, Spring 2022