

Zhengyu (Mike) Qu

Prospective Graduate Student

mikequ@ucla.edu

University of California, Los Angeles

Education

University of California - Los Angeles, Los Angeles, CA

BS Computer Engineering

2020 – 2024

ECE Departmental Scholar

Advisor: Xiang 'Anthony' Chen

Relevant Coursework: Neural Signal Processing, Neural Networks and Deep Learning, Large Scale Complex Networks, Systems Design, Probability and Statistics, Matrix Analysis, Algorithms & Complexity.

Experiences

Neural Engineering and Computation Lab – UCLA

Student Researcher - Advisor: Jonathan Kao

May 2023 – Present

Integrating an EEG-based Brain Machine Interface with a robotic arm to develop effective neural prostheses.

Developed robotic control algorithms and a categorical variational encoder-based generative model to allow for precise and smooth movements of the prosthetic arm.

Amazon.com, Inc. – Irvine, CA

Software Development Engineer Intern

June 2023 – September 2023

Implemented a new Inter-Process Communication mechanism on the middleware layer of Echo Devices, resulting in a 15% improvement in user-perceived latency and 5% reduction in memory consumption for affiliated processes.

Software Development Engineer Intern

June 2022 – September 2022

Designed and Developed a customer-centric user experience feature. Shipped to Echo Devices worldwide.

Bruin Supermileage – UCLA

Managing Director

May 2022 – May 2023

Led a 30-person team to research, design and build an efficiency-optimized prototype internal combustion vehicle. Developed timelines and provided guidance for the team's engineering direction.. Managed 10+ projects and ensured that they were completed successfully. Achieved an estimated 1,239 mpg during testing, and 422 mpg at competition—our first successful run in 5 years.

Electronics Team Lead

May 2021 – May 2022

Developed hardware and software for an Engine Control Module capable of electronic fuel injection and data acquisition Created a comprehensive curriculum on fundamental electronics and programming concepts and conducted new member training.

Endera Motors, LLC – San Gabriel, CA

Software Engineering Intern

July 2021 – October 2021

Developed and Deployed a fleet-use web application that mathematically models the real-world efficiency of Endera's electric commercial vehicles. Reduced execution time for simulations by 70%.

Membership

IEEE-HKN	2021 - Present
UPE	2022 - Present
IEEE	2020 - Present

Technical Skills

Software: C++, C, Python, R, MATLAB, Shell Scripting, Git, GDB, RISC-V, PyTorch

Hardware: Altium PCB Design, Cadence Digital Design, QuestaSim HDL, Xilinx Vivado

Mechanical: SolidWorks CAD, COMSOL Multiphysics