Yuliang Zhu

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Education

University of Michigan, Ann Arbor — Ann Arbor, MI
M.Sc. in Electrical and Computer Engineering, Mecahnical Engineering; ***GPA: 4.00/4.00*** — *Sep 2019 – Dec 2021*

Dalian University of Technology — Dalian, China
B.En. in Vehicle Engineering; ***GPA: 3.60/4.00*** — *Sep 2015 – Jun 2019*

Professional Experience

Apple — San Diego, CA
Machine Learning Engineer — *Jan 2022 – Present*

Apple Pencil Hover Feature Development | *Showcase*

- Contributed to the software of Apple Pencil Hover feature that detects Apple Pencil's tip location up to 12mm above the panel, enables users to preview actions such as drawing interactively before committing to them, improving precision, customization and workflow in daily tasks such as digital art creation and note-taking
- Implemented pencil tilt estimation to enable Apple Pencil to detect its tilt angle when hovering, allowing users to change the shading or thickness of their strokes
- Evaluated user-facing metrics for the performance of tilt angle esitimation to improve user experience
- Streamlined Hover's performance evaluation based on user study and feedbacks, improving efficiency and reducing development time by 2 weeks
- Validated the performance of iPad Palm Rejection, improving user experience by rejecting unintentional palm contacts on the screen when drawing or writing

Apple Pencil Pro Development for iPad Pro | *Showcase*

- Adapted Apple Pencil Pro's interaction software to the new designs of iPad Pro 7th Gen
- Ran unit tests to ensure the accuracy performance in various use cases such as writing and drawing

iPhone 16 Pro Multi-touch Calibration | *Showcase*

- Calibrated the touch responsiveness for iPhone 16 Pro models, ensuring normal functions and natural feelings for various hand and finger sizes
- Provided support for Multi-touch software in the production phase for important user-facing issues, such as touch failures

Isuzu Technical Center of America — Plymouth, MI
PVRD Intern — *Aug 2020*

- Built a software test platform based on the Janpanese ZMP car for the Isuzu EV Truck to perform parking lot sweeping and cleaning tasks
- Designed fixtures for stably mounting external batteries to extend the operation time of tasks
- Refined the truck's cleaning route to improve efficiency and safety of the task

Projects

University of Michigan, Ann Arbor — Ann Arbor, MI
Research Assistant — *May 2021 – Aug 2021*

- Conducted literature review on automatic image labeling methods, which help improve efficiency, scalability and reduce costs for human labeling in real life applications such as stock assessment in agriculture
- Surveyed different open-source approaches and compared their pros and cons

Activities

World Economic Forum — Dalian, China
Volunteer — *July 2019*

- Guided and supported the receptions for international visitors
- Coordinated with the limousine team for managing and serving car rental