Chenda Duan

Los Angeles, CA 90024 | 310-254-5864 | chenda@ucla.edu

linkedin.com/in/chenda-d | github.com/Dadaism6 | chendaduan.com

Education

University of California, Los Angeles (UCLA) **2022.09 – Expected 2024.06**

Master of Science in Computer Science Los Angeles, CA

- **GPA: 4.0/4.0**
- **Teaching Assistant:** CS174A: Intro to Computer Graphics, CS33: Introduction to Computer Organization
- **Core Courses:** Cloud Computing, Data Mining, Adversarial Robustness, Advanced Computer Architecture.

University of California, Los Angeles (UCLA) **2019.09 – 2022.06**

Bachelor of Science in Computer Science Los Angeles, CA

- **GPA: 4.0/4.0 | Honor**: Summa Cum Laude, Dean's Honors List
- **Learning Assistant**: CS32: Intro to Computer Science
- **Core Courses:** Algorithms, Software Engineering, Database, Computer Organization&Architecture, Operating Systems, Network, Programming Languages, CV, NLP, Machine Learning, Probability, Linear Algebra

Technical Skills

Language: Python, C++, Java, Shell, MATLAB

Front End: JavaScript, HTML/CSS, React

Database & Deployment: MySQL, GCP, Docker

Others: Robotics, CV, ML, NLP

Work / Research Experience

Kuaishou Technology **2023.6 – Present**

Vision Algorithm Research Engineer Beijing, China

- Developing lightweighted 3d reconstruction and physical rendering models.

UCLA Prof. Bolei Zhou's Group **2022.03 – Present**

Student Researcher Los Angeles, CA

- Developed an improved version of the Human-in-the-loop Reinforcement Learning (RL). The trained agent can master driving tasks in **less than 30 minutes** on a home PC, saving **more than 90%** of the training time compared to traditional RL methods such as SAC, using **Python**(**PyTorch**). Paper Sumitted to ICML 2023.
- Developed more photorealistic simulation environment for training RL autopilot agent using UE4 and Airsim.
- Developed a platform for large-scale traffic scenario modeling and simulation for RL, IL, and automous driving tasks.
- Currently developing an test-time zero-shot adaptation method for trained RL agents.

UCLA Structure-Computer Interaction Lab **2020.06 – 2022.6**

Undergraduate Researcher Los Angeles, CA

- Developed a 2D **LiDAR** robotic navigation algorithm for a road identification system and improved the navigation accuracy by **30%** (compared with multi-Ransac) for the robot while maintaining a low cost (less than $100). The road identification system was deployed on a low-cost autonomous weed-control agri-robot, using **C++** and **Python**.
- Created an inverse learning approach to train a model to generate the physical parameters (such as diameter) for the **soft robot** and increase the efficiency of collecting the parameters by **90%**, using **Python** (**Tensorflow**).

UCLA Center for Neurobehavioral Genetics **2020.06 – 2022.6**

Undergraduate Researcher Los Angeles, CA

- Processed RNA sequence data and performed PCA, data visualization etc, using **Python** and **R**.
- Proved that Low-coverage RNA sequencing is an effective approach in Expression quantitative trait loci studies and can save the cost by **more than 50%**. Learn more details via the paper "*Powerful eQTL mapping through low-coverage RNA sequencing*".

Course Project

AR Glass Assistants APP **2023.3 – 2023.6**

- Built client-server twin **Android** apps that can run on mobile AR glasses to capture videos and sounds, sending compressed data to the phones via Wifi or Bluetooth for object/audio detection, and transfer data back.
- Careful design of the congestion control, motion adjusting, etc.

Online Text Generation Server **2022.3 - 2022.6**

- Built a NGINX standard web server with REST API capabilities using **C++** and **Boost** Library.

- Constructed a CI/CD Pipeline on GCP: Detailed log info, test coverage monitoring using Google Test, and code review using gerrit. Setup a monitor dashboard to record up-time and request latency.
- Source code: https://github.com/Dadaism6/UCLA-CS130-Googolplex

Online Basketball-shooting Game **2021.10 - 2021.12**

- Designed and implemented an online basketball-shooting game with advanced graphic features, including shadow, texture, and reflections, using **JavaScript** and **WebGL**.
- Demo: https://basketball-shooting.herokuapp.com

Egglendar Online Calendar **2020.10 - 2020.12**

- Developed an online student calendar specially for international students, with features of importing and converting calendars, adding school course schedules, and finding classmates.
- Using Material-UI for designing and **React** for the front-end framework, and **MySQL** as the database.