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, lectured more than 50 students.

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, lectured more than 50 students.
· **Core Courses:** Algorithms, Computer Organization, Operating Systems, Computer Architecture, Network, Programming Languages, Database, Software Engineering, Computer Vision, NLP, Machine Learning

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

UCLA Prof. Bolei Zhou's Group   **2022.03 – Present**
Student Researcher   Los Angeles, CA
· Currently developing 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**).
· Developing more photorealistic simulation environment for training RL autopilot agent using UE4 and Airsim.

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

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.