

Feiyang (Sunny) Guan

412-996-9834 | feiyangg@andrew.cmu.edu | linkedin.com/in/feiyang-guan

EDUCATION

Carnegie Mellon University, Pittsburgh, PA

May 2025

B.S. in Mathematical Science, Intended Major in Computer Science, GPA: 4.0/4.0

Relevant courses: Parallel Algorithms, Computer Systems, Theoretical Computer Science, Functional Programming

EXPERIENCE

Carnegie Mellon University School of Computer Science

Aug 2022 - Present

Teaching Assistant

- Lead recitations and office hours for 15-112, a **Python** course.
- Utilize open source projects such as **Viztracer** to visualize Python code.
- Cooperate with other TAs to improve recitation quality and piazza answering efficiency.
- Developing a new **highly concurrent** Office-Hour Queue application in **Java** to address the current system's constant slowdown due to high volume visits.

PROJECTS

Protigue Eats

May 2022 - Aug 2022

- Developed an online food ordering web app featuring **Frontend Backend Separation** with a partner.
- Designed a **RESTful API** document for smooth communication between frontend and backend developers.
- Created both management webpages for restaurants and ordering webpages for mobile clients.
- Built the backend server with **Java** and **Spring Boot** framework.
- Implemented a secure OAuth2 login system with **Spring Security**.
- Improved **MySQL** database connection speed by **Druid** datasource and developing efficiency with **MyBatis-Plus**.
- Optimized ordering experience with **Redis** caching popular meals.

Real Car Racing with Game AI

Nov 2021 - Dec 2021

- Developed A **Python** racing game featuring real-world physics simulation.
- Allowed users to import custom racing tracks with **OpenCV** processing track images into game data.
- Accelerated collision calculation by **NumPy** module.
- Enabled Game AI with a backtracking algorithm.

Proxy Server

Jul 2022 - Aug 2022

- Built a **Linux**-based **TCP/IP** proxy written in **C**.
- Allowed concurrent client visits by multi-threading.
- Passed tests on real-world browsers such as Firefox

SKILLS

Programming Languages: Java, Python, C, C++, SQL, HTML/CSS, JavaScript

Tools: Spring Boot, MySQL, Redis, MyBatis-Plus, Nginx, Git, Linux, OpenCV, NumPy