Feiyang Yu

919-638-9824 | feiyang.yu@duke.edu | GitHub: Gofeiyang

EDUCATION

Duke University – Durham, NC **Aug. 2022 – May 2024**

- **Major:** Master of Engineering in Electrical and Computer Engineering GPA: 3.8/4.0

Hangzhou University of Electronic Science and Technology – Hangzhou, China **Sept. 2018 – June 2022**

- **Major:** Bachelor of Science in Computer Science GPA: 3.8/4.0
- Graduate with honors (Dean's List), First-class scholarship

SKILLS

Programming Languages: C/C++, Java, Python, Shell, Verilog, SQL, MIPS assembly, TCL, Visual Basic, JavaScript, HTML, CSS, PHP, MATLAB, Rust

Development Tools & Frameworks: Linux, Git, GDB, Docker, Pytorch, CI/CD, AWS, React, Django, Spring Boot, Flask, Valgrind, Gradle, Maven, CUDA

WORK EXPERIENCE

Lattice Semiconductor – *Software Architecture Engineer* **May 2023 – Aug. 2023**

- Enhanced FPGA chip performance by designing and optimizing **routing algorithms** in **C++**, which resolved **device modeling** issues and achieved a 26% increase in chip frequency.
- Improved **data collection** and **processing** workflows by developing **Python** scripts, achieved a 30% increase in efficiency, and implemented one-click visualization capabilities.
- Created **benchmarks** and conducted **timing analyses** with in-house and competitor FPGAs, analyzing variance causes and making recommendations.

Zhejiang Yiliu Network Technology Co. – *Software Engineer* **July 2020 – Aug. 2020**

- Developed a license plate recognition system using **Python** and **OpenCV** to authenticate vehicles in parking lots, enhancing security and operational efficiency.
- Optimized an e-commerce platform by integrating targeted advertising and enhancing **UI** interactivity with **React**.

PROJECTS

RAID System – *Developer* **Feb. 2024 – Apr. 2024**

- Implemented RAID0, RAID1 and RAID4 drivers using **BUSE**, enabling block-level storage management in user space; simulated enterprise-level storage architectures to enhance data reliability and speed.
- Conducted performance analysis using IOPS benchmarks to evaluate and optimize RAID configurations.

HPN-SSH File System – *Developer & GitHub Contributor* **Feb. 2024 – Now**

- Refined a SSH filesystem based on **FUSE**, enabling the mount of remote filesystems over SFTP and HPN-SSH.
- Enhanced data throughput by implementing **reverse SSH** and scaled system operations using a multi-threaded model with **thread pools**, significantly boosting read and write speeds.

Stroke EEG-based Classification Recognition – *Undergrad Research Assistant* **Feb. 2020 – Dec. 2020**

- Collaboratively developed a **CNN**-based classification method to improve brain signal analysis.
- Awarded Third Prize in World Robotics Competition.

LEADERSHIP AND CAMPUS INVOLVEMENT

Live AI Hackathon – *Team Leader* **Mar. 2024**

- Led a team to develop a **GPT**-based Course Selection Assistant using **React** and **Flask**
- Awarded Winner on Product Demo and received Honorable Mentions for Global Product Design

Duke ECE Dept. – *Teaching Assistant for ECE550K: Computer Systems and Engineering* **Aug. 2023 – Dec.2023**

- Conducted help sessions to reinforce lecture concepts, such as **memory management**, **concurrency**, **hardware interface**. Led lab sessions and provided hands-on experience with HDLs and simulation tools.