YU LONG

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EDUCATION

University of California, Berkeley

Aug 2021 – May 2024 or May 2025 (flexible)

Bachelor of Science in Electrical Engineering and Computer Sciences (EECS)

GPA: 4.00/4.00, Dean's List, Honors to Date

Relevant Coursework: CS 61B Data Structures, CS186 Database System, CS 162 Operating System, CS 161 Computer Security, CS 170 Efficient Algorithm and Intractable Problems, CS 169 Software Engineering, CS 61A Computer Programs, CS 61C Machine Structure, CS 70 Discrete Mathematics and Probability and more.

SKILLS

Languages/Formats: C#, JavaScript/TypeScript, Python, Java, Golang, Rust, C, HTML/CSS, Ruby, MATLAB, JSON, CSV, LaTeX. Frameworks/Tools: Unity, T3/Next.JS, Node, Express, React Query, Redux/RTK, FastAPI, Spring Boot, Docker, Sql/NoSql(Mongo, Postgres, MySQL), AWS(S3, Lambda, RDS etc), Supabase/Firebase, MapReduce, Jenkins, Rails, Postman, Storybook, Bootstrap, Tailwind. Non-technical: AGILE Workflow, working in/leading teams, teaching, organizing large events (300+), Media skills.

WORK EXPERIENCES

PayPal, Inc.

Software Engineer Intern May 2023 - Present

- Taking the lead in the design and development of a full-stack PayPal Merchant Partner Product quality suit that stores, filters and visualize product quality for various PayPal partners including Meta and Shopify across diverse countries, facilitating data-driven decision making, using latest stacks like **Raptor**, **Next.JS**, and **Spring Boot**.
- Spearheaded the development and implementation of an innovative framework that integrates **Jenkins** jobs with **TestRail**, providing a fully seamless and automated framework to replace the cumbersome manual tests flow, significant boosting overall productivity.
- Pioneered a live issue project that uses both traditional ML approaches and the latest **LLM** technologies (Meta's **Llama**) that summarizes and identifies general patterns in live issue reports, empowering the team to discover and address problematic areas (e.g., webhooks).
- Working in a highly globalized **SCRUM** team and collaborating with cross-functional groups in NA and Asia, contributing to efficient communications. I brought in the 30-second rule and two-pizza meeting which was adopted to various extents by different groups.

Epicomic Cultural Diffusion Co., Ltd.

Software Developer & DevOps Apr 2021 - Present

- Led and successfully launched a commercial game in **Unity** (Sold over 100,000 copies on <u>Steam</u>) that supports 3-language localization, **Steamworks** Cloud Storage, keyboard/controller support, 50+ equipment, 30+ characters, 10+ dungeons and 6 DLCs.
- Scoped, researched, designed, and launched a whole set of player data **API backend** with **Alibaba Cloud** and **AWS services** (serving player authentication, achievement tracking, score, leaderboard, inventory, trophies, etc.) that could be used in all games of our studio and works cross-platform (Desktop, Nintendo Switch, PlayStation), serving players globally.
- Engineered **UDP** networking backends for Unity games using **Mirror Networking**, hosting and maintaining 10+ match making servers and relay servers around the globe, enabling low-latency matchmaking, and real-time multiplayer state synchronization.
- Initiated game performance optimization efforts and transformed asset management using techniques including **draw batching, texture** atlas, async loading, leading to substantial memory savings of 2x-4x across multiple projects.

Coffee Tea, Inc.

Co-Founder & Technical Lead Oct 2022 – Dec 2022

- Initiated a social platform democratizing college application industry by allowing applicants connect to college students via coffee chat.
- Studied competing product, architected the rendering & networking stacks in Unity for developing a metaverse chat product with VR.
- Lead a team of 4 engineers to design, develop and document a full set of backend REST API using **FastAPI**, **Poetry**, **Alembic** and **PostgreSQL** following best practices, including modules like authentication, profile management, recommendation, payment and etc.
- Built and deployed a containerized monorepo architecture with full CI/CD pipeline using **Docker**, **Pytest with coverage**, **Github Action**, **Vercel** and various **AWS products** (**Elastic Beanstalk**, **RDS**, **S3**, **Lambda and SES**).
- Oversaw and worked with a contracted engineer to develop a frontend and communicated between engineers and the UI/UX team.

 There are some highlights. More projects / work experiences available on my website.

LEADERSHIP/RESEARCH EXPERIENCES

Undergraduate Student Instructor (TA)

UC Berkeley Electrical Engineering & Computer Sciences. Jan 2022 – Present

• Serve in CS169 (Software Engineering) for fall 2023 and in CS70 (Discrete Maths and Probability Theory) for summer 2022 and spring 2023, hosting discussion sessions with 20-30 students several times per week, 2 office hours per week, driving homework/exam creation.

Research Assistant UC Berkeley Electrical Engineering & Computer Sciences. Sep 2021 – May 2022

- · Parallelized a visual correcting display algorithm in two ways: using OpenCL and using OpenCV parallel-for, with 2x runtime gain.
- Prototyped and built an Android app by porting native C++ codebase to Java, allowing algorithm benchmarking on lower-end devices.