YU LONG

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EDUCATION

University of California, Berkeley   Aug 2021 – May 2024

Bachelor of Science in Electrical Engineering and Computer Sciences (EECS)   GPA: 3.99/4.00, Dean's List, Honors to Date

Relevant Coursework: Operating System, Database System, Computer Security, Data Structures, Algorithm, Software Engineering, Machine Structure/Computer Architecture, Discrete Mathematics, Multivariable Calculus, Optimization Models, and more.

SKILLS

Languages/Formats: C#, JavaScript/TypeScript, Python, Golang, Java, Rust, C, HTML/CSS, Ruby, MATLAB

Frameworks/Tools: T3 Stack/Next.JS, Unity, Express, React/Redux/RTK, Docker/Kubernetes/Terraform, FastAPI, Astro.JS, Spring Boot, Sql/NoSql (Mongo, Postgres, MySQL, Supabase/Firebase), AWS/GCP/Alicloud/various cloud services (compute, storage, db, k8s etc), MapReduce, Jenkins, Ruby on Rails, Postman, Cypress, Puppeteer, Storybook, Bootstrap, Tailwind, LaTeX....

Non-technical: AGILE Workflow, working in/leading teams, teaching, organizing large events (300+), Media skills.

WORK EXPERIENCES   More projects, and full work experiences available on my website.

Citadel Securities   *Software Engineer Intern*   June 2024 – Aug 2024

• NDA engineering project on a unified cloud developer workspace solution and its relevant tooling for across the firm.

PayPal   *Software Engineer Intern*   May 2023 – Aug 2023

• 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).

Epicomic Cultural Diffusion   *Software Developer & DevOps* Apr 2021 - Present

• Led and successfully launched a commercial game in **Unity** (Sold over 100,000 copies on Steam) 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 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.

LEADERSHIP/RESEARCH EXPERIENCES

Undergraduate Student Instructor (TA)   *UC Berkeley Electrical Engineering & Computer Sciences.*   Jan 2022 – May 2024

• Serve in CS169 (Software Engineering) starting from fall 2023, and in CS70 (Discrete Maths and Probability Theory) since Spring 2022, hosting discussion sessions with 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.