

Software Engineer
PinChia (Lorne) Chen

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EDUCATION

University of Southern California, Los Angeles, CA Jan 2022-Dec 2023
GPA: 3.85/4.00, Master of Science, Computer Science
Relevant Coursework: Database System, Multimedia, Security System, Analysis of Algorithm

National Chengchi University, Taipei, Taiwan Aug 2012-Jun 2016
GPA: 3.91/4.00, Bachelor of Science, Computer Science, Minor: Japanese
Relevant Coursework: Machine Learning, Operating Systems, Cryptography, Computer Networking, Human-Computer Interaction, Mobile Application Development, Social Network Development

TECHNICAL SKILLS

- **Programming:** Python, TypeScript, Golang, Swift, C/C++, Rust, SQL
- **Tools:** Docker, Git, Pandas, D3.js, OpenCV, Bash, Jest, WebAssembly, Jenkins, Linux, PostgreSQL
- **Languages:** Mandarin (Native), English (Fluent), Japanese (Advanced)

PROFESSIONAL EXPERIENCE

Staff Software Engineer, Frontend Team Lead, AuroraTech Co., Taipei, Taiwan Jan 2021-Oct 2021

- Led a team of 5 frontend engineers in developing a high-performance trading application in Next.js and Flutter, efficiently visualizing over 100,000 records of quote data per second.
- Architected and implemented CMS to support locale translation, system status monitoring, and integration of K8S deployment through Python scripts, maximizing the system automation.
- Conducted code reviews and enforced best practices related to the typing system, resulting in a 30% improvement in development time.
- Reduced team expenses by 16% through developing in-house libraries and adopting agile development practices, successfully delivering new features and consistently surpassing deadlines.
- Collaborated with cross-functional teams to identify and prioritize feature designs, leading to a 20% improvement in overall development efficiency.

Senior Software Engineer, Frontend, AuroraTech Co., Taipei, Taiwan Jun 2017-Jul 2020

- Developed a live-watching platform using React Native, achieving up to 70% code reusability, and created SwiftUI live-streaming app with Agora API, delivering a high-quality streaming experience.
- Designed the migration of a legacy monolithic application to a microservices architecture based on Go gRPC, improving scalability and reducing system downtime by 40%.
- Automated the build, test, and deployment processes, incorporating tools such as Jenkins and Git, and integrated into the TypeScript-based build system, resulting in improved release cycles.
- Pioneered the introduction of TypeScript in the company's web application, improving code maintainability, enhancing developer productivity, and reducing regression issues.

Intern, Fandora Co., Taipei, Taiwan Jul 2015-Sep 2016

- Leveraged the power of Canvas to enable real-time preview and manipulation of images, ensuring instant feedback for business partners during the editing process.
- Collaborated with backend developers to design and define GraphQL schemas and queries, leading to efficient data retrieval and minimizing network requests.

PROJECTS

PenteAI Mar 2023

- Developed an AI player using the minimax algorithm in C++ for the game Pente.
- Optimized the algorithm's efficiency and reduced search time by implementing alpha-beta pruning and transposition tables.

Panorama from Video Nov 2022

- Utilized OpenCV and Python to separate foreground and background elements, creating a panorama.
- Reconstructed new sequence of camera perspectives by composing foreground objects and panorama.

ACTIVITIES

CTF Team, Cyborg, USC Aug 2022-Present

- National Cyber League CTF 2022 Fall: Individual Game Rank 32 / 6636, Team Game Rank 31/3926
- LA CTF 2023 team rank: 31/980