Tze-Chieh (Jay) Chou

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EDUCATION

University of California, Berkeley

Berkeley, CA

B.A. in Computer Science (GPA 4.0/4.0)

May 2025

- Relevant Coursework: Operating Systems and System Programming, Computer Security, Introduction to Database Systems, Efficient Algorithms and Intractable Problems, Computer Architecture (Machine Structures), Introduction to Machine Learning, Introduction to Artificial Intelligence, Principles & Techniques of Data Science, Data Structures
- Activities & Societies: UPE Honor Society, Launchpad (ML), AFX Dance, Taiwanese Student Association (TSA)

WORK EXPERIENCE

Stripe Seattle, WA

Software Engineering Intern

May 2024 – Aug 2024

- Developed full-stack task management tooling to help reduce incident response time by 20-30 minutes per incident
- Incorporated task-related data into existing LLM tooling to provide context and enhance the LLM response quality

Verkada San Mateo, CA

Software Engineering Intern

May 2023 – Aug 2023

- Designed PostgreSQL schemas and created API endpoints to support saving & modifying filter parameters on events
- Created a Kubernetes deployment with autoscaling concurrent pods to periodically generate CSV reports based on user-specified schedules, upload to AWS S3, & email the links to users, using Datadog metrics to monitor the service
- Incorporated Debezium to synchronize database changes between 2 services, devised DynamoDB schemas & indexes based on the access pattern, and leveraged Kafka topics and consumers to receive and process database changes in Go

UC Berkeley IT Berkeley, CA

Web Development Intern

Dec 2022 – Jun 2023

- Built a full-stack NextJS app allowing users to report and view campus wifi strengths on a heatmap by crowdsourcing
- Added content on the UC Berkeley Mobile App through the Modo platform with JSON to support custom features

PicCollage Taipei, Taiwan

Software Development Intern (Web)

May 2022 – Aug 2022

- [Groupful] Built video upload & compression in Firebase Functions, updated UX using ReactJS, and improved SEO
- [MixerChat]
 - Developed and launched a breakout- and mobile-supporting video conferencing platform with Nuxt 3 (Vue)
 - o Designed and implemented invite-to-room and room-based text chat features with Firestore and Daily.co API

OTHER EXPERIENCES

Launchpad (UC Berkeley ML Club)

Berkeley, CA

President

Jan 2024 – Present

- Manage a creative machine learning and artificial intelligence organization with 50+ engineers that build client and internal student-led projects and host educational workshops on campus
- Drive the long-term vision of an organization with \$50,000+ annual income and lead a board of executives, fostering a community to empower students in the ML/AI space

Machine Learning Developer

Oct 2021 – Present

- [Duet] Built an audio genre interpolator based on a <u>VO-VAE</u> paper to extract style & content info from audio files
- [Reconstructor] Trained various NeRF networks to generate 3D reconstructions using self-collected 2D images
- [Attune] Built model to detect anomalies across time-series data using LSTM autoencoders & forecasting methods
- [HiddenLayer] Experimented with various proxy models for pre-trained LLMs and generated adversarial examples

SKILLS & CERTIFICATIONS

Technical Skills: Python, Java, Javascript/Typescript, GoLang, C/C++, PostgreSQL, DynamoDB, Swift, ReactJS, VueJS, Firebase, Kubernetes, Terraform, Docker, GitHub, Flask, PyTorch, NumPy, Pandas

Certifications & Competitions: 2022 UChicago Trading (#3), Competitive Programming (#2 in City Competition)