

Tze-Chieh (Jay) Chou

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EDUCATION

University of California, Berkeley

Berkeley, CA

Bachelor of Arts in Computer Science (GPA 4.0/4.0)

May 2024

- **Past Coursework:** Structure & Interpretation of Computer Programs, Data Structures, Discrete Mathematics and Probability Theory, Linear Algebra & Differential Equations, The Foundations of Data Science
- **Current Coursework:** Efficient Algorithms and Intractable Problems, Great Ideas in Computer Architecture (Machine Structures), Introduction to Artificial Intelligence

EXPERIENCE

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 and Vue 3
 - Designed and implemented invite-to-room and room-based text chat features with Firestore and Daily.co API

Launchpad (UC Berkeley)

Berkeley, CA

Web Developer

Aug 2022 – Present

- Designed and implemented project page editor supporting markdown syntax using Javascript, SQLite, and Django

Machine Learning Developer

Oct 2021 – Present

- [[Duet](#)] Built an audio genre interpolator based on a [VO-VAE](#) paper to extract style & content info from audio files
- [[Reconstructor](#)] Trained various [NeRF](#) networks to generate 3D reconstructions using self-collected 2D images

Sinlau Hospital Information Systems Office

Tainan, Taiwan

Software Development Intern

Aug 2019, Aug 2020

- [[Prescription Manual](#) Project] Developed web app that automates organization of medical info and reduces manual maintenance time using ASP.NET, Microsoft SQL server, and Bootstrap, benefiting a total of 18 pharmacists
- [Respiratory Therapy Log Project] Built desktop app that digitizes patient care records, retrieves and integrates values from machines and automates calculations using Visual C#, reducing work time by 250% for ten employees

National Taiwan Normal University Robotics Lab

Taipei, Taiwan

Lab Assistant Intern

Jul 2019

- Learned and applied ML concepts (CNNs, vision), implemented fuzzy control in C++ based on published journals
- Reimplemented MATLAB precision control simulation code in C++, built helper functions for matrix calculations

INDEPENDENT PROJECTS

[QuiConnect](#) - Social Media Linking App (Cross-Platform)

Oct 2021 – Nov 2021

- Developed iOS/Android app using React Native, incorporating third-party QR code scanner and generator libraries
- Devised UI allowing users to enter personal info and generate/scan code to connect with others on social media

[MyGymBud](#) - Workout Tracking App (iOS)

Jun 2021 – Sep 2021

- Designed data models for storing fitness (weight/time) data that allow automatic unit conversions and comparison
- Incorporated SwiftUI components and third-party packages (SwiftUICharts/Sliders) to build app UI in XCode

[MDIDConnect](#) - Classroom Reservation System (Web)

Sep 2018 – May 2019

- Developed full-stack web application allowing 300 students & faculty to view status and reserve classrooms online
- Incorporated third-party plugins and Bootstrap themes, devised SQL structure, and established backend using PHP

SKILLS, ACTIVITIES & INTERESTS

Languages: Python, Java, C++, Javascript, Typescript, PHP, HTML, CSS, SQL, Swift

Technical Skills: Bootstrap, Tailwind, Flask, PyTorch, NumPy, ReactJS, VueJS, Firebase, Netlify, Django, GitHub

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