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, Principles and Techniques of Data Science, Great Ideas in Computer Architecture (Machine Structures)

EXPERIENCE

PicCollage Taipei, Taiwan

Software Development Intern

May 2022 – Aug 2022

Launchpad (UC Berkeley)

Berkeley, CA

Machine Learning Developer

Oct 2021 – Present

- [Duet] Built an audio genre interpolator based on a <u>VQ-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

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

Oct 2021 - Present

Cross-Platform App Developer

- 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

Jun 2021 – Sep 2021

iOS App Developer

- 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

Sep 2018 - May 2019

Web App Developer

- 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

Technical Skills: Python, Java, C++, Javascript, PHP, Swift, HTML, Bootstrap, Flask, SQL, PyTorch, ReactJS **Certifications & Competitions**: 2022 UChicago Trading (#3), Competitive Programming (#2 in City Competition)

Languages: Fluent in English & Mandarin, Conversational in Spanish (DELE B1)

Interests: Piano, Badminton, Volleyball, Workout, Travel, Language Learning, K-pop Dance, Crime Thrillers