MENGYU "JACK" ZHANG

Los Angeles, CA

jackzhang.me or jackz314.me

@ me@jackzhang.me

github.com/jackz314

linkedin.com/in/jackz314

stackoverflow.com/u/8170714

WORK EXPERIENCES

Data Scientist/ Software Developer — **Children's Hospital Los Angeles, Levitt Lab** ⧉ — **Jan 2021 - Oct 2023 (part-time before 2022)**
- Machine Learning research and software development focused on EEG and signal processing under Dr. Pat Levitt.
- Developed machine learning based pipelines that analyze and remove noise from infant EEG data using Signal Processing (blind source separation), Computer Vision (movement analysis), and more.
- Developed in-house and contributed to open source projects like EEG IO tools, participant recognition and tracking systems, and graphical data editing interfaces that helps with the main project.

`Python / Signal Processing / Computer Vision / TensorFlow / EEG / MatLab`

Software Developer Intern — **Royal Bank of Canada, Amplify** ⧉ — **Summer 2021**
- Built the first end-to-end YAML-configured monitoring deployment tool on RBC's Site Reliability Engineering team to help increase its monitoring coverage and operational efficiency.
- Automated tasks like Prometheus onboarding using Consul and deploying Grafana dashboard templates for tools like MongoDB using Jsonnet with an 86% stack coverage.
- Key contributions: configuration generator, deployer, YAML processor, and UI components.

`JavaScript / Python / Flask / React / Kubernetes / IaC / Jsonnet / Docusaurus`

Teaching Assistant — **University of Southern California, CS@SC** ⧉ — **Jun 2020 - May 2021**
- Taught Python, Java, and Web development to students of different levels from middle/high school.
- Helped students with understanding programming concepts and debugging their code.
- Created unit tests for student assignments, wrote quizzes and review questions for the students.

`Java / JavaScript / Python`

EDUCATION

2019 – 2022 — **University of Southern California** — **B.S. - Computer Science**
GPA: 3.86/4
Software Development, Advanced Data Structures & Algorithms, Operating Systems & Networking, Computer and Network Security, Computer Architecture, Computer Organization, Machine Learning, Artificial Intelligence, Probability Theory, Linear Algebra, Calculus, Discrete Math

PROJECTS

Personal Project Full Stack — **Shopper** ⧉ — **Since Oct 2023**
Purpose: one-stop solution for comparing grocery prices across different places.
Built a web app that compares grocery prices from different stores and retailers. Supports unit price conversion and comparison. Features reactive front end built with Svelte.

`Svelte / JavaScript / Go / SQLite / Cloudflare Workers`

Personal Project Android & Back end — **"KnocKnock"** ⧉ — **Since Oct 2018**
Purpose: video conferencing app with unique features that suits my needs.
Built a WebRTC based video conferencing app with features like real-time captioning, language identification, noise-canceling, and manual camera controls. Used Machine Learning for audio/image processing.

`Android / Kotlin / Java / WebRTC / Python / Firebase / PHP / C++ / TensorFlow`

Project Lead Full Stack — **GreatFinds** ⧉ — **Sep 2020 to Nov 2020**
Software Development class final project, a platform that allows users to share all kinds of media content. Utilized the Java EE stack to develop server-client platform. Built the project structure with core components like JPA (database) and JSF. Led and coordinated efforts among all group members.

`Java EE / JSF / JPA / MySQL / JavaScript`

Personal Project Cross Platform — **Decide for Me** ⧉ — **Aug 2022 - Oct 2023**
Purpose: let the computer decide on places like restaurants for me to avoid making hard decisions.
Built a cross-platform Flutter app that can pick places for the user randomly, weighed by ratings, using Yelp's Fusion API. Supports filters based on location, distance, price, rating, hours, and more.

`Flutter / Dart / JavaScript / Riverpod / Android`

For more on my projects, visit jackzhang.me/projects ⧉.

SKILLS (IN APPROXIMATE PROFIENCY ORDER, MOST TO LEAST)

Languages: Python, JavaScript, Java, C/C++, Kotlin, Go, SQL, PHP, Bash, MATLAB.

Frameworks/Tools: Android, Node.js, React, Svelte, Flutter, Flask, TensorFlow, Firebase, Java EE, MySQL, GCP, WebRTC, CI.

ACTIVITIES/HOBBIES

Machine Learning
ACM
Hackathons (e.g. HackSC, HackMerced)
Answering on Stack Overflow :)
CTFs (e.g. picoCTF: 400/16000)

MORE

View the up-to-date version of this resume or learn more about me at **jackzhang.me/resume**