Lize Chen

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EDUCATION

Rice University, Houston, TX

Aug 2021 - Dec 2022

Master's degree, Computer Science (GPA: 3.60/4.0)

University of Arizona, Tucson, AZ

Aug 2017 - May 2020

Bachelor of Science, Computer Science, Mathematics (GPA: 3.53/4.0, *Cum Laude, Dean's List*) **Programming Languages** (main) Java, JavaScript, Python, (proficient) Bash, C/C++, C#, Dart, SQL

Frameworks & Tools AWS, Django, Docker, FastAPI, Flask, Flutter, MySQL, NoSQL, Postgres, React, Spring

WORK EXPERIENCE

Full Stack Engineer

May 2023 - present

Houston, Texas

Lenwell International, Corp

- Led the development of multiple **e-commerce** platforms (B2B, B2C) **from 0 to 1** using Agile methodologies.
- Achieved monthly \$100k transactions on the web platform, integrating **Stripe** for payment security, while utilizing **React Redux** for streamlined states and **Django** for MVP phase, transitioning to **Java Spring Boot** for production.
- Reduced costs by **36.8%** and improved response time by **56.3%** through a hybrid database approach leveraging **PostgreSQL** and **DynamoDB**, with **Lambda** seamlessly triggering database operations.
- Attained a 30-50% performance improvement by leveraging Flask, Flutter, and FastAPI for the mobile app.
- Drove a 35% reduction in development time and revolutionized deployment efficiency by dockerizing the backend into Elastic Container Service, and integrating AWS Amplify for the frontend to enable full-stack CI/CD pipelines.
- Mentored and facilitated intern onboarding and spearheaded the establishment of comprehensive software dev docs.

Mobile Application Developer

Feb 2023 - May 2023

Rice University Department of Mechanical Engineering

Houston, Texas

- Developed an **Android** app using Java and incorporated Kotlin libraries. Applied a custom YOLOv5 model to analyze control and test line intensities on virus test kits, achieving **95%** image recognition accuracy.
- Assisted a cross-functional team in implementing web scraping and automated data extraction processes for biomarkers using **Pandas** and **Selenium**, effectively eliminating page loading time by **100%**.

Research Computing Software Engineering Intern

May 2022 - Aug 2022

Rice University Center for Career Development

Houston, Texas

- Prototyped a data-centric web application running in **OCI**, architecting a lightweight, autoscaling cloud deployment model, with over **50,000** visitors per month.
- Containerized the application with Docker, built RESTful APIs with Django framework and manipulated data in MySQL database of 95,153 entries by Python Pandas.
- Customized UIs with **React MUI** and **Plotly** to enable more intuitive data interaction and faster insight generation.

Software Engineer

Dec 2020 - May 2021

FUJIFILM Business Innovation Corp.

Shanghai, China

- Engineered multiple display pages for Fujifilm printer touchscreen using C++/JavaScript, optimizing Web Widget performance by implementing text wrapping, focusing, and IME integration, boosting user engagement by 40%.
- Created an automated deployment script by **Bash/UltraVNC**, updating and making configurations for **100**+ virtual printers in **VirtualBox**, reducing **100%** manual configuring/testing processes.
- Collaborated with a 10-person team to develop a meeting room scheduling software for **6700**+ companies, establishing **Vue.js** frontend with **Java Spring Boot** backend, and utilizing **Alibaba Cloud/RabbitMQ/Redis**.

Teaching Assistant at Rice University, Houston, Texas

Aug 2021 - Dec 2021

• Graded and provided feedback on assignments/exams for COMP 311/544 Functional Programming.

PROJECTS

Muti-User Blogging Platform | React, NodeJS, MongoDB, Jasmine, Jest

Oct 2022 - Dec 2022

• Combined OAuth for enhanced security, potentially boosting user trust and satisfaction by up to 30%.

Muti-User Chat App | Java, JavaScript, Bootstrap, WebSocket, MVC, Maven

Oct 2021 - Nov 2021

• Led a 7-person team to develop an instant messaging web app that supports communication in private or group chat rooms.

Artificial Intelligence Project - Pacwar | Python, Genetic Algorithm, AWS EC2

Sep 2021 - Dec 2021

• Awarded the championship in the 2021 Rice Pacwar Tournament, competing against 24 other teams.

Games that induce emotion for ToMCAT | Java, Shell, OpenCV

Sep 2019 - May 2020

• Collaborated research team to collect synchronized data from multiple people interacting within Java-Based Minecraft.