

Yang Qi

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SKILLS

- **Languages:** Python, Java, Golang, SQL, Javascript, Typescript, HTML, CSS
- **Frameworks:** Django, React, Redux, Jest, Vue, Node.js, D3.js, Express
- **Developer Tools:** AWS, Docker, Linux, MySQL, SQLite, MongoDB, Redis, Grafana, Prometheus, Loki
- **Libraries:** NumPy, Pandas, Matplotlib, Cv2, Scikit-learn

PROFESSIONAL EXPERIENCE

University of Utah - School of Medicine

Software Engineer

Salt Lake City, UT

July 2023 - Jan 2025

- Developed and launched the real-time genomic data visualization application [iobio.io](#) using **Vue**, **Vite**, **Python**, and **SQLite**, increasing user engagement by 30% (Google Analytics).
- Built [bam.iobio](#) using **D3.js** for rapid sequence alignment analysis, reducing processing time to seconds and improving maintainability by modularizing components into reusable **Web Components**. The project is being integrated into the Ontario Institute for Cancer Research (OICR) to support large-scale genomic studies.
- Designed and delivered a collaborated patient portal for the Undiagnosed Diseases Network at **Harvard Medical School** using **Figma**, **React**, and **D3.js**.
- Designed an **ETL** pipeline to process diverse genetic data, refactored the codebase from Java to **Python** to enhance scalability by 40%, and optimized database query efficiency by 50% through redesigned indexing.
- Deployed a centralized monitoring system (**Grafana**, **Prometheus**, **Loki**, **Docker-compose**), improving backend stability by 70% and reducing costs by 30% through auto-scaling and alerting.

Enveda Biosciences

Software Engineer Intern

Salt Lake City, UT

May 2022 - Aug 2022

- Built **ETL** pipelines with **CI/CD** (**GitHub Actions**, **Docker**, **ECR**) to process bio-lab data automatically and implemented backend services using **AWS Lambda** to process data from **S3** into **Athena**, enhancing drug discovery workflow efficiency by 40% and reducing data processing time by 30%.
- Launched a web application to support machine learning inference using **Python**, **Streamlit**, and **Rdkit**; deployed on **AWS EC2** and utilized by 100+ biologists.
- Collaborated with a **cross-functional** team to design a customized dashboard application for biologists.

University of Utah - Creativity & Innovation Department

Creativity & Innovation Specialist

Salt Lake City, UT

Apr 2022 - May 2023

- Developed a web application using the **Streamlit** framework to incorporate the Whisper AI model for processing digital library collections with an accuracy of over 90%.
- Implemented features including model and language selection, video or audio loading, and file transcribing, which improved user processing speed by 50%.

PROJECT EXPERIENCE

Full Stack Web Development

- Created a microblogging web application using **JavaScript**, **HTML/CSS**, and **React** for the frontend.
- Utilized **Django**, **MySQL**, and the **MVT design pattern** to design **RESTful APIs** for tweets, friendships, newsfeeds (push design pattern), likes, and comments in the backend service.
- Employed **Redis** to reduce database queries for tables with frequently-read and infrequent writes.
- Implemented **denormalization** to store the number of comments and likes to reduce database queries.

EDUCATION

University of Utah

Master of Computer Software Engineering

Salt Lake City, UT

Aug 2021- May 2023

University of Electronic Science and Technology of China

Bachelor of Mechanical Engineering