Yang Qi

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EDUCATION

University of Utah   **Salt Lake City, UT**
Master of Computer Software Engineering   Aug. 2021 - May 2023
University of Electronic Science and Technology   **CHINA**
Bachelor of Mechanical Design, Manufacturing and Automation   Sept. 2010 - June 2014

WORK EXPERIENCE

University of Utah   **Salt Lake City, UT**
Creativity Innovation Specialist   Apr. 2022 - Present
- Worked with a team of 4 to utilize **Jira REST API** to build apps and scripts based on **Flask** framework to automate a 3D printing lab, including submitting, printing, and auto payment systems, resulting in running the lab from regular hours to 24/7 efficiently.
- Provided consultation to 200 students and faculties on 3D modeling and VR projects and assisted with 3D designing, scanning, and printing.

Enveda Biosciences   **Salt Lake City, UT**
Software Engineer Intern   May 2022 - Aug. 2022
- Built **ETL** pipelines with **CI/CD** practices to process multiple data streams to nominate high-confidence therapeutic hypotheses and target candidates using **AWS Lambda**, **Amazon CloudWatch**, **Dockerizing**, **ECR**, **S3**, **and Athena**; pipelines resulted in increasing processing efficiency by >50% in core workflows.
- Developed a new web application to interact with the knowledge gained from Enveda's novel machine learning inference using **Python**, **Streamlit**, **Rdkit**, and **Poetry**; this application deployed on **AWS EC2** was utilized by >100 internal users and external clients.
- Worked with the manager on designing a system to integrate internal and external data resources into one application based on Flask-RESTful to support chemists' analysis.

PROJECTS

Backend Project - Django Twitter   https://github.com/YangQi007/django-twitter
- Used push model to fanout news feeds.
- Applied **Redis** and **Memcached** to reduce direct reads and writes to DB; utilized Key-value store **HBase** to split DB queries for tables which has less reads and lot writes.
- Implemented **denormalization** to store the number of comments and likes to reduce DB queries; employed **Message Queue** to deliver asynchronized tasks to reduce response time.
- The whole project resulted in 10000 lines of code changes and cost over 6 months.

Language Interpreter   https://github.com/YangQi007/msdscript
- Created a language interpreter based on **C++** used as an executable program or incorporated into other applications as a library; implemented features including parsing, arithmetic/logical operations, variable comparison, and function execution.
- Utilized **unit test** tools and wrote comprehensive documentation.

SKILLS

- **Programming Languages:** Python, Java, C++, Kotlin, Javascript/HTML/CSS
- **Frameworks/Tools:** Django, React, Docker, MySQL, Redis, Hbase, Memcached, AWS, Android, Git, Poetry, Linux, agile