Xingrui Zhu

(1) 587-969-4450 | xingruiricky@gmail.com | Github | LinkedIn | Personal Website

WORK EXPERIENCE

Data Engineer Intern -- *AI Financial* **April 2023 – October 2023**

- Utilized **Python**, **Pandas**, and **NumPy** extensively for data manipulation and analysis in software development projects.
- Collaborated in an **Agile development** environment, working closely with data analysts to effectively progress projects.
- Managed large datasets, performing data querying and preliminary analysis using **SQL** in software development tasks.
- Used **GitHub** for version control and Implemented GitHub **CI/CD pipelines** for automated code integration and deployment, enhancing code quality and deployment efficiency.
- Utilized **Docker** to create and manage **containerized environments**, ensuring consistency across development, testing, and production stages.
- Proficient in utilizing **APIs** for efficient **data acquisition**, experienced in integrating various data sources like social media, financial markets, or other third-party services.
- Developed **web scraping** tools to collect data from websites not offering APIs, using libraries like **BeautifulSoup** and **Scrapy** in **Python**.

PERSONAL PROJECTS

Distributed E-commerce System **January 2023 – April 2023**

- Managed and led the E-commerce system project in collaboration with 7 team members as a front-end technical leader, built a scalable and responsive distributed commercial system.
- Crafted the front-end utilizing the **React** framework in **JavaScript** ES6, adapting advanced **Hook API** and adhering to the **SPA**(single page application) principle.
- Devised and executed **load-balancer** algorithms to effectively manage distributed servers.
- Designed and implemented 20+ **Restful** database API to transfer **JSON** objects for front-end/back-end communication.
- Communicated and collaborated across multiple teams to optimize and manage database structure using **SQL** that minimizes the coupling of database relationships.
- Diagnosed and fixed issues by using **Postman** to verify back-end distributed server functionality and simulate high demand requests for stress testing.
- Improved user interface experience using Chrome **DevTools** by fixing 10+ functionality issues and accelerating GUI runtime speed by ~ 2 times.
- Using **React-Bootstrap** for component-based **CSS** style development.

Multi-user Online Draw Board **September 2022 – January 2023**

- Spearheaded and guided a team of 6 members as a project manager on building the project.
- Designed and implemented a highly scalable **SQLite** database optimized for concurrent user sessions, with an efficient schema and indexing strategy, providing **RESTful API**.
- Utilized **Websocket** for reliable real-time communication between clients and the server.
- Adapt **Flex and Grid** layout design to design the **mobile-friendly** application using media queries.

SKILLS

- **Programming Languages:**
  - Python, Java, C#, C++, JavaScript, SQL, TypeScript, HTML, CSS, Haskell, Prolog, R
- **Web Development:**
  - Front-End: React,, Material UI
  - Back-End: Django, Node.js
  - Frameworks: WPF
- **DevOps :**
  - Containerization: Docker
  - Continuous Integration/Continuous Deployment: Jenkins, GitHub Actions
- **Software Development Tools:**
  - Version Control: GitHub, GitLab
  - API Testing: Postman
  - Unit Testing: JUnit, PyTest, Jest
- **Database Management:**
  - Relational Databases: MySQL
  - NoSQL Databases: MongoDB

EDUCATION

- **University of Calgary**
- **Bachelor of Science, Major in Computer Science**   **Sept 2018 – Jan 2023**
- **Dean's List Award**   **(GPA 3.5 / 4.0)**
- **Related Courses:** Web-based System, Machine Learning, Database Design and Management, Data Structure and Algorithm, Computer Network Security, Operating System, Statistic.