Lireng Zheng

Greater NYC Area | simonzheng569@gmail.com | lirengzheng.com | GitHub: nemo2134 | LinkedIn: lirengzheng

Experiences

Software Engineer   *July 2023 - Present*
RTX Corporation   New York, NY
- Built **12+** features to **4+** applications that improve latency of 10K+ requests by 300ms using **TypeScript, Spring, SQL**
- Designed system to process **200,000+** line items per budget file into **Oracle**, reducing project creation time by **50%**
- Implemented migration of services into **Snowflake**, **AWS,** and **Git**, supporting program requirements for big data size
- Led technical meetings with other teams and stakeholders to deliver MVP promptly through **Zoom**, **Teams**, and **Jira**

Software Engineer   *November 2022 - June 2023*
Itlize Global   New York, NY
- Designed, built, and tested the Joole Marketplace Platform (JMP) for businesses to develop an online marketplace for building products. Utilized **Mockito** and **JUnit** for testing
- Visualized JMP by delivering features for personalizing profiles and user support using **TypeScript**, **Spring**, and **SQL**
- Migrated JMP into the cloud using **AWS CDK**, **ECS**, **S3**, and **Lambda** to manage serverless technology

Software Engineering Intern   *July 2022 - August 2022*
BeaconFire Corporation   New York, NY
- Directed the intern team to model and normalize AdventureWorks data warehouse using **MySQL** and **Hibernate** to speed up query processing by **15%** and backed up database files in **3NF**, providing proper transactional management
- Implemented a Guessing Game by having users attempt to guess randomly generated numbers using **OOP** design

Projects

OtakuSpeak - Japanese Learning App   *In Progress*
- Created a language learning app for anime fans to learn Japanese through anime clips using **Angular** and **Flask**
- Implemented transcribing tool for audio clips using **Whisper** to provide translation, pronunciation and cultural notes
- Built extensive library feature, enabling users to browse through over **80+** anime titles and access direct viewing links

Cracking the Stock Market - Guide To Success   *20 Hours*
- Designed **Python RAG** system leveraging **LlamaIndex** and **TruLens** to curate key fundamentals for stock trading
- Developed system using the sentence-window and auto-merging retrieval techniques to improve evaluation metrics in answer relevance, context relevance, and groundedness on over **40+** trading-related evaluation questions
- Implemented an interactive dashboard that displays resulting evaluation metrics using **Plotly**, **NumPy**, and **Pandas**

DistrictMe - React Web App   *50 Hours*
- Created a **RESTful React-Leaflet** mapping web app that performs gerrymandering and generates district plans
- Processed US Census States demographic data using the computational cluster **SeaWulf** and the **MCMC** algorithm in **Spring** to aggregate congressional districts into **10,000** random districtings based on user set constraints
- Utilized **GeoPandas** and **Shapely** in **Python** to generate precinct nodes and edges that identify contiguous precincts

Saleos - Online Dating App   *30 Hours*
- Created dating webapp using **JDBC Apache Tomcat**. Allows users to browse and query other users based on set filters
- Implemented user access control through login authentication, differentiating manager, customer rep, and user in **Java**
- Designed schemas for all users data and normalized tables into **3NF** using **Lucidchart** and **MySQL**

Activities

AI NYC (*Dev Community)*   *Ongoing*
In-Person Meetups/Online Networking Events   New York, NY
- Participated in meet & greets, focusing on key AI topics: machine learning, computer vision, ChatGPT, GPT, and more
- Engaged in online speaker info-sessions and Q&A events with the founder of **NexHealth**, **AppLovin**, and CPO of **Hinge**

Software Engineering Tutor   *Oct 2016 - Jan 2021*
Angel Advantage Center   New York, NY
- Facilitated student learning through hands-on projects focusing on web development in **HTML**, **CSS**, and **JavaScript**

Technical Skills

Languages- **Proficient:** Java (*7yr)*, SQL (*5yr),* TypeScript (*4yr)*| **Intermediate:**JavaScript (*5yr)*, Python (*3yr)*| **Beginner:** C (*2yr)*
Software- AWS | Snowflake | Oracle | Spring | Maven | React | Angular | JUnit | Mockito | Git | Jenkins | Jira | OpenAI | VSC

Education

Stony Brook University, Stony Brook, New York   *May 2022*
Bachelor of Science in *Computer Science*
Relevant Coursework: *Software Engineering - Data Structures, Algorithms | Database Systems - RDBMS, Schema Designs*