

# Lireng Zheng

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## Technical Skills

Languages-Proficient: Java-7yrs | SQL - 5yrs | TypeScript - 4yrs Intermediate: Python - 3yrs | JavaScript - 5yrs Beginner: C - 2yrs  
Software - AWS | Spring | Maven | Hibernate | React | Angular | JUnit | Mockito | Jira | Git | Jenkins | Docker | Snowflake

## Experiences

### Software Engineer

July 2023 - Present

#### RTX Corporation – Web Application Developer (Fullstack)

Greater NYC

- Conducted full-stack development on RTX's reference applications suite using **Angular**, **TypeScript**, **Spring**, and **SQL**
- Developed a tool to process **200,000+** line items per EAC to reduce Material EAC creation time by **50%**, delivering more accurate actual cost forecasts and enabling stakeholders to optimize headcount and direct EAC costs
- Configured and migrated apps into **Snowflake**, **AWS**, and **Git** to support program requirements for both data size and number of users accessing the system simultaneously during a quarterly EAC cycle
- Collaborated with cross-functional teams utilizing **Jira** to deliver MVP to stakeholders timely

November 2022 - June 2023

#### Itlize Global – Java Cloud Application Developer (Fullstack)

Greater NYC

- Designed, built, and tested the Joole Marketplace Platform for businesses to develop an online marketplace for building products. Utilized **Mockito** and **JUnit** for testing
- Visualized platform by leveraging personalized profiles to enhance customer experiences using **React**, **Spring**, and **SQL**
- Migrated JMP into the cloud using **AWS CDK**, **ECS**, **S3**, and **Lambda** to manage serverless technology

July 2022 - August 2022

#### BeaconFire Corporation – Java Software Developer Summer Intern (Backend)

Greater NYC

- Designed a Guessing Game by having users attempt to guess randomly generated numbers using classes and their instance methods, variables, constructors, and other object-oriented programming concepts
- Collaborated with the intern team to model and normalize AdventureWorks data warehouse using **MySQL** and **Hibernate** to speed up query processing and backup database files in 3NF, providing proper transactional management

### AP Computer Science Tutor

Oct 2016 - May 2021

### Angel Advantage Center

Brooklyn, NY

## Projects

### DistrictMe (Java / Python / JavaScript / MySQL)

- A **RESTful React-Leaflet** mapping software web app that performs gerrymandering and generates district plans using user-specific parameters such as user constraints, measures, and weights
- Preprocessing of US Census States demographic data using **SeaWulf** processing and MCMC algorithmic approach as the graph partitioning analysis to aggregate the desired number of congressional districts into 10,000 random districtings based on set constraints
- Utilization of **GeoPandas/Shapely** as sub-systems to generate precinct nodes and edges that identify contiguous precincts that include census demographic data and election data
- Analysis of racial and political fairness through implementations in **Spring Boot** and **MySQL** database as server logic that stores geospatial data containing detailed descriptions of the boundary, demographic data, and election result data for each precinct

### Instant Messenger (C)

- Implementation of instant messaging protocol using packet encoding and decoding of data according to the packet types (status, labeled, statistics, and message) in a Linux x86-64 system
- Manipulation of format of different packets in memory using pointer arithmetic, raw memory access, data structures, and data serialization
- Local and class-wide shared server testing to perform the full-screen terminal application that displays the chat client messaging system

## Education

**Stony Brook University**, Stony Brook, New York

May 2022

Bachelor of Science in *Computer Science*