

ZHEN LIU

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SUMMARY

Seeking a full-time software engineer position starting from June 2021. Master degree candidate with strong programming, analytical and designing skills. A wide range of project experience on web development, algorithm design, and data processing. Strong knowledge of computer science and solid programming skills in Java, C++, SQL, HTML/CSS and JavaScript.

EDUCATION

Dalhousie University , Halifax, NS	GPA: 4.13 / 4.30
Master of Computer Science (thesis-based)	January 2019 - April 2021(Expected)

Shandong University of Finance and Economics , Jinan, China	GPA: 3.61 / 4.00
B.S. in Information Management and Information System	September 2014 - June 2018

TECHNICAL SKILLS

Programming Languages	Java, JavaScript, SQL, C++
Databases and Cloud	MySQL, AWS EC2, AWS Lambda
Web/Mobile Development	Java Servlet, HTML, CSS

WORK EXPERIENCE

SpryPoint, Inc	April 2019 - November 2019
<i>Research Assistant</i>	<i>Halifax, NS</i>

- Used JDBC to integrate data on a household basis and clean the incomplete data.
- Designed and analyzed of daily electricity consumption trends based on the smart meter data from 2016 to 2019 for among thousands of residents of Prince Edward Island, Canada.
- Implemented diverse algorithms on different operating systems by using Java, MATLAB, PostgreSQL with 20% improvement in user efficiency and developed a new feature for company to offer personalized electricity bill packages to customers.

RESEARCH EXPERIENCE

Range Mode Query Research

- Implemented different range mode query algorithms and compared their running time and space occupation using C++ language and Ubuntu Server.
- Analyzed 12G high-dynamically real word data from Amazon Product Review Dataset for querying data and finding the mode based on distinct ranges.
- Utilized compact data structures to improve $O(\sqrt{\log_2 n})$ running time and save $O(\log_2 n)$ space.

PROJECT

Job+: A Personalized Job Recommendation System

- Designed and implemented an interactive web application for users to search and apply available job positions based on their location.
- Performed some concise and interactive UI pages and implementation using HTML/CSS/JavaScript.
- Implemented RESTful APIs using Java servlets, retrieved job descriptions using Github API and stored data in MySQL.
- Explored multiple recommendation algorithms and extracted keywords from job descriptions to implement a Content-Based algorithm by using MonkeyLearn API.
- Deployed to Amazon EC2 for more availability.