Zaied Zaman . Jarvis Consulting

Self-motivated problem-solver and strong collaborator who always strives for innovative and the most suitable solution. I have started working as a jarvis consultant after the completion of my Master's degree in Computer Science (Research-Based). Apart from my Master's research project, I have collaborated with several labs to provide software solutions during my master's. These experiences grew interested and confidence inside me to contribute to the data engineering industry. Practicing programming problem-solving and participate in programming contests is one of my hobbies alongside reading books on different topics.

Skills

Proficient: Java, Linux/Bash, RDBMS/SQL, Agile/Scrum, Git, Springboot, Maven

Competent: C, C++, Algorithms & Data structures, Matlab, Image Processing

Familiar: Node.js, Javascript, HTML, CSS, Python, Express

Development Projects

Project source code: https://github.com/jarviscanada/jarvis_data_eng_demo

- **Cluster Monitor**: A Bash and PostgreSQL based Cluster monitor agent for distributed systems. The Node machines send continuos hardware usage and hardware specification data which is monitored and persisted by server machine in a Dockerized PostgreSQL database. Maven has been used to manage dependencies.
- **Core Java Apps**: A compilation of three Maven managed pure Java-based apps. The grep app recursively traverses directories and subdirectories and perform searching or text-processing. The JDBC app interacts with a Dockerized PostgreSQL database with pure java and JDBC driver. The Twitter app show, post, delete Tweet data using the Twitter API. Efficient exception handling, logging, and testing frameworks have been used in these apps. Annotations, appropriate design patterns, JSON parsing, HTTP connector libraries have been used for necessary reasons.
- **SpringBoot App**: A maven managed spring-boot based Java app. This app interacts with API and extracts stock Market data and show, update, delete and additionally persist them in a dockerized PostgreSQL database. This app itself is also dockerized. Springboot framework, Annotations and PostgreSQL have been extensively used alongside additional design patterns. PostMan and Swagger have been used extensively to test the app end-points.
- **Cloud & DevOps**: Not started
- **Hadoop**: Not started
- **Spark/Scala**: Not started

Professional Experiences

Software Developer, Jarvis, Toronto (2020-Present): Developed Java, BASH/SQL, Springboot based apps. Working in this position made me a better team collaborator by practicing agile methodologies and professionally handle and deliver projects individually.

Research Assistant, Western University, London, ON (February, 2020-April, 2020): Developed a framework to integrate Quantum computing with Computer networking. Finding scopes to utilize newer methods to existing problems improved my problem-solving ability.

Research Assistant, Western University, London, ON (September 2019 - January 2020): Mentored the current lab students and collaborated with labs to deliver automation software solutions. This experience grew leadership and increased my collaboration abilities with clients.

Research Assistant, Western University, London, ON (September 2017 - August 2019): Designed and implemented my proposed algorithm to improve image processing (denoising) performance which was my master's research and helped me to achieve the degree. I have also implemented software solutions for collaborating labs during this time. Designing and implementing software solutions with minimal supervision made me confident in working individually.

Teaching Assistant, Western University, London, ON (September 2017 - August 2019): Designed and conducted labs, tutorials and assignments. I worked as a TA for Introduction to Computer Organization and Architecture course. Collaboration and mentoring are the primary improvements that I gained from this experience.

Education & Academic Projects

Western University (2017-2019), M.Sc. in Computer Science (Research-based)

- **Master's research algorithm:** My research field was Image Processing and Computer vision. The publication title is "Optimizing the usage of 2D and 3D transformations to improve the BM3D image denoising algorithm.". The implemented codebase was in C++. Optimization techniques like Dynamic Programming was utilized to reduce time complexity. Exception handling and efficient memory usage were kept in mind during the implementation. The efficient usage of several STL data structures had been done as well. Achieving this target gave me experience on how to manage a the large codebase and add features compatible with it in a time and memory-efficient way.

Islamic University of Technology (2017-2019), B.Sc. in Electrical and Electronic Engineering

- **MRI Imaging Software:** The publication title was "Inpainting multiple sclerosis lesions for improving registration performance with brain atlas" published in 2016 International Conference on Medical Engineering, Health Informatics and Technology (MediTec). The implemented codebase was in Matlab and C++. Several open-source brain imaging tools and data formats have been used here. Collaborated with a remote team in this project.

Weather Forecasting API: Implemented a weather forecasting API using the OpenWeather API data. Node.js and Express framework is used in this app.

Inventory System: Implemented Inventory system and web page routing to render static and dynamic webpages. Node.js, HTML, CSS, and client-side javascript is used extensively. Integrated the native C++ code into the Node.js framework using N-API library.

Certificates & Awards & Activities

- Western Graduate Research Scholarship (WGRS)
- Full free funding in Regular scheme in Islamic University of Technology
- Participated and qualified in 2019, 2020 Google Code Jam and 2019 Facebook Hacker Cup