Noshin Nawar Sadat . Jarvis Consulting

I have recently graduated from the University of Waterloo with a Master of Mathematics in Computer Science and I am looking to get my feet wet in the Data Engineering industry. I have a natural affinity for problem-solving. This developed into a genuine interest in pursuing a career in Computer Science and led me to pursue both an undergraduate and a graduate degree in this field. I got particularly interested in working with data and did several projects related to the same. I have gained strong programming skills in Java and R while working on assignments and projects. I also worked as Lecturer for Data Structures, Algorithms, and Introduction to Programming courses where the main language in practice was Java. This has helped me to develop a strong understanding of the concepts of Object-Oriented Programming. During my downtime, I like reading, listening to music, hanging out with friends and family, and sight-seeing. My career goal is to be able to solve real-world problems with the knowledge and experiences I gain.

Skills

Proficient: Java, Bash, SQL, Agile/Scrum, OOP, Data Structures, Algorithms, HTML

Competent: Spring, Springboot, Git, R, CSS, Python, Machine Learning (Scikit-learn), PHP

Familiar: Redis, Memcached, JavaScript, Time Series Analysis, Usability Testing, Persuasive Software Design

Development Projects

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

- **Linux & SQL**: Developed a cluster monitoring bash agent that records hardware specifications and monitors resource usage (per minute) of all nodes in a cluster. Provisioned PostgreSQL database in one of the nodes to store information of all nodes with the help of the bash agent installed in all of them. Used cron job to schedule the collection of resource usage information every minute. Wrote SQL queries to generate reports for some business questions.
- **Core Java Apps**: Developed a Java8 based application called JavaGrep that searches all files in a directory recursively for a user-provided regular expression. Lines that contain those expressions are written into a new file. Developed a JDBC-based application that allows users to perform basic CRUD operations on a PostgreSQL database using DAO pattern. Developed a Java8 based application called TwitterCLI which helps users create, read, and delete posts on Twitter using Twitter Rest API. Created four versions of the TwitterCLI application - basic Java version, Spring Beans version, Spring Component Scan version, and Springboot version. Wrote Unit Tests and Integration Tests for the applications using JUnit4 and Mockito.
- **SpringBoot App**: Developed a Java8 and Springboot based REST API of a trading platform that uses IEX Cloud as a data source and PostgreSQL to persist data. Used a three-tier microservice architecture to implement it. Made use of Spring DAO to handle data access in PostgreSQL. Wrote unit and integration test using JUnit4 and Mockito. Dockerized the application.
- **Cloud & DevOps:** Not started
- **Hadoop:** Not started
- **Spark/Scala**: Not started

Professional Experiences

Associate Data Engineer, Jarvis, Toronto (2020-Present): Working on big data technologies based projects which include Java, Hadoop, Spark, Cloud, and DevOps. Responsible for performing the duties of the team lead in Agile-based team projects to aid scrum master in conducting scrum ceremonies.

Graduate Teaching Assistant, University of Waterloo, Toronto (2018-2019): Was responsible for marking exams and assignments which involved going through submitted codes. Held consultation hours to assist students in understanding the concepts of the course.

Lecturer, BRAC University, Dhaka (2018-2018): Prepared and delivered weekly lectures on Computer Networks (included OSI layers) course. Conducted lab sessions for Introduction to Programming Language I & II, Data Structures, and Algorithms courses, which involved teaching, debugging, and marking Java codes. Coordinated and planned course contents with other Lecturers.

Education & Academic Projects

University of Waterloo (2018-2020), Master of Mathematics, Computer Science

- **Comparing Redis and Memcached:** Analyzed the latencies and throughputs of read, update and insert operations, memory usage, and scalability of Redis and Memcached using different customized workloads from the Yahoo! Cloud Serving Benchmark (YCSB) to analyze the two databases in both single-node and cluster modes.
- **Botnet Detection:** Built a classification model using Python that separated algorithmically generated domain names from legit domain names with 97% accuracy. Successfully detected all the 10 Conficker infected hosts from among 22 hosts in a dataset.

BRAC University (2012-2016), Bachelor of Computer Science, Computer Science & Engineering

- **Time Series Analysis of Stock Returns:** Developed an informative web-based platform to analyze time series of stock market returns data and to fit ARIMA models to the series to forecast future returns. The platform also acted as an informative tool by providing helpful instructions to the users regarding the analysis and model-fitting procedure. R was used for statistical computations, while SQL, PHP, HTML5, CSS3 were used for website development.

Certificates & Awards & Activities

- Vice Chancellor's List, BRAC University - 2012-2016 : CGPA above 3.97/4.00
- Vice Chancellor's Medal, BRAC University - 2016 : Highest CGPA, CSE department, class of 2016