Bhavesh Shailesh Agrawal

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EDUCATION

North Carolina State University
GPA: 3.74

Master of Computer Science
Graduating: May 2021

- **Courses**: Design and Analysis of Algorithms, Artificial Intelligence, Neural Networks, Automated Learning and Data Analysis, Software Engineering, Human Computer Interface

Chaitanya Bharathi Institute of Technology, India
GPA: 8.9/10

Bachelor of Engineering in Computer Science and Engineering
August 2013 – April 2017

- **Courses**: Data Structures and Algorithms, Object Oriented Programming, Computer Networks

EXPERIENCE

Wells Fargo India Solutions
July 2017 - April 2019

Applications Developer, 2 years
Hyderabad, India

- Responsible for development and maintenance of several functionalities and screens of a web-based application primarily using Spring, Java Servlet Pages and jQuery.
- Collaborated with team members to migrate the entire code from Struts 2 framework to Spring MVC in order to improve application security and performance.
- Lead a team of 5 to resolve around 400 security-related issues such as SQL Injections and Cross-Site Scripting based on SonarQube scans.
- Conducted hands-on training sessions for colleagues on approaches to write JUnit test cases for existing and new functions to achieve a minimum of 80% code coverage as a standard metric.
- Learnt tools like Splunk and AppDynamics to speed up the process of finding and fixing critical defects and performance lapses in production environment.

TECHNICAL SKILLS

Languages : Java, Python, C, C++, JavaScript, SQL
Web Technologies : HTML, CSS, jQuery, React.js, Redux, JSTL, JSP, Bootstrap, Ajax, Semantic-UI, REST API
Frameworks : Spring MVC, Spring Boot, Node.js, Hibernate, JPA, Struts 2, JUnit, Mockito
Tools : Git, Tortoise SVN, MySQL, Virtualbox, SonarQube, AppDynamics, Splunk, IntelliJ IDEA, Eclipse, Visual Studio Code, HP Application Life Cycle Management, JIRA, Jupyter Notebook, Apache Spark, Heroku
Machine Learning : Keras, Scikit-learn, Numpy, Pandas, PyTorch, Matplotlib

PROJECTS

Full Stack Web Application: Job Search Aid tool | Java, JavaScript, SQL
- Developed user forum, application tracking and notifications and email integration modules for a web application.
- Coded the Front-end logic in React and Semantic-UI and developed REST endpoints in Spring Boot.
- Defined the database schema and performed Object-Relational Mapping using JPA and Hibernate.

Real-Time packet Streaming using QUIC Protocol | Cpp, Python
- Compared the performances of QUIC and TCP Protocols while sending real-time video packets over a network.
- Configured web sockets and defined a packet size distribution system to imitate real time video packet flows
- Programmatically assessed the throughputs the transmissions by recording the data transferred every second.

Terrain Identification using Neural Networks | Keras, Python
- Trained RNN, CNN and Bi-LSTM Neural Networks to identify the terrain types using sample data that consisted of gyroscope and accelerometer values from more than 20 subjects.
- Preprocessed, augmented and balanced an imbalanced input dataset using SMOTE.
- Compared F1 scores to select the best model and worked towards further improving the performance using hyperparameter tuning. The final model was able to achieve an accuracy score of 91%.

Smart Units Converter Extension | JavaScript
- Developed a browser extension that quickly converted user's text selection to popular alternative units.
- Programmed the extension to cover a wide variety of measurements such as distance, speed, energy, mass etc.
- Used online available in order to convert real-time values as currency and time zones.
- Project was voted as the most popular project in a class of 130.