Sanveg Rane

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EDUCATION

North Carolina State University, Raleigh, NC **GPA: 4.00/4.00**
Master's in Computer Science August 2019 – Current
Design and Analysis of Algorithms, Object Oriented Design and Development, Human Computer Interaction (UX), Database Management Systems, Artificial Intelligence, Automated Learning and Data Analysis

K.J. Somaiya College of Engineering, University of Mumbai **GPA: 8.41/10.0**
Bachelor of Engineering, Computer Engineering August 2013 – May 2017
Algorithms and Data Structures, Operating Systems, Databases, Compiler Construction, Data Analysis, Machine Learning

SKILLS

Languages: Java (proficient), Python, JavaScript, C++ (beginner), Ruby, Bash, MATLAB, TypeScript, HTML / CSS, PHP, SQL
Frameworks: Spring MVC, Spring Boot, Spring JPA, Hibernate, TensorFlow, Node, AngularJS, React, Android, Ruby on Rails
Concepts: OO Design, Distributed Systems, Problem solving, Design Patterns, Microservices, REST APIs, CI/CD
Tools: Git, Heroku, AWS, Docker, MySQL, Jira, NoSQL, MongoDB, Oracle, Messaging, JUnit, PL/SQL, Linux OS

EXPERIENCE

Engineering Development Intern **The MathWorks** (Boston, MA) May 2020 – August 2020
- Bug Tracking tool - Developed a React based application to record and track application wide issues in MATLAB product
- Implemented RESTful web-services utilizing Java based JAX-RS framework to provide bug tracking information
- Developed an NLP based time series Recurrent Neural Network model to analyze context of user entered bug report and recommend potential duplicate issues existing in the system
- Followed agile based scrum methodology with requirement gathering and continuous delivery of features

Software Engineer Consultant **Morgan Stanley** (Mumbai, India) June 2017 – July 2019
- Analyzed, structured and delivered reliable software by collaborating with cross-functional teams in multiple domains
- Developed a **highly scalable and configurable Web framework** with Java based Spring MVC, Angular and SQL; utilized by development teams to create customizable web applications and deliver large scale accounting information seamlessly
- Designed and deployed an application with Java, Python, MongoDB to generate daily reports on Client Transactions
- Facilitated faster response times of data-intensive APIs by **optimizing fragments of code** and leveraging concurrency
- Key player in all aspects of the software development lifecycle, from requirement gathering to production deployment

PROJECTS

Notify-Me Website *(Java, Spring MVC, Spring-security, JPA, MySQL, Angular, Docker, Scheduler, Web Scraping Backend)*
- A Web Application to monitor product price on ecommerce website to deliver best prices for users
- Developed functionalities to read a webpage mark up, track prices and notify users
- Followed release management and continuous integration practices using Jenkins

Detecting Spoilers in Movie Reviews (*Deep learning, RNNs, LSTM, NLP, Keras, TensorFlow)*
- A Bi-Direction LSTM RNN model to detect presence of any spoiler content in the movie reviews
- Utilized NLP to preprocess training data to analyze similarities of reviews with actual spoilers to determine similarities
- Developed a model with 77% accuracy and 80% recall rate in detecting a review with actual spoilers

Expertiza - Open Source Contribution *(Ruby on Rails, SQL, Web Technologies)*
- Rails based open source project to create reusable learning objects and facilitate peer reviews
- Integrated a module to assign weights on questions in an assignment and score computation considering the weights

Smart Stick for Visually Challenged *(Android, Java, C++, SDLC, Performance Tuning)*
- A walking stick connected to an Android application which detects potholes and obstacles, provides voice-based navigation and gesture detection; to **assist visually impaired people in commuting**
- Devised algorithms to detect potholes and obstacles using ultrasonic sensors and Arduino
- Published a technical paper in International Journal of Science for the proposed algorithms

Lexi Vote – LexisNexis Hackathon 2019 *(Ionic, Typescript, Dialogflow, Chatbot, Mobile application)*
- Android application to **encourage and assist young voters** of US in election process
- Developed a Dialogflow based chatbot with sentiment analysis to respond to user queries

Neural Network Implementation (*Deep learning, Neural Networks, R, Data Analysis)*
- Implemented a neural network to detect diabetes using the Pima Indian data set
- Coded the network from scratch in R, with sigmoid calculations and optimizer to train the network

Course Tracker *(Python, Web Scraping, MongoDB, Heroku, Cloud)*
- Python script to **track enrollment status of courses** on college website and notify interested students
- Coded a python script to automate checking availability status of various courses on NCSU website using Python