

# Sanveg Rane

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## EDUCATION

### North Carolina State University, Raleigh, NC

Anticipated May 2021

Master of Science, Computer Science, GPA: 4.0/4.0

Relevant Courses: Design and Analysis of Algorithms, Object-Oriented Design and Development, Human Computer Interaction, Database Management Systems, Artificial Intelligence, Advanced Machine Learning, Neural Networks, Data Analysis

### K.J. Somaiya College of Engineering, University of Mumbai

May 2017

Bachelor of Engineering, Computer Engineering, GPA: 8.41/10.0

Relevant Courses: Algorithms and Data Structures, Operating Systems, 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

## WORK EXPERIENCE

### Engineering Development Intern, The MathWorks, Boston, MA

May 2020–August 2020

- Created a new React based bug tracking tool to record and monitor application wide issues in the MATLAB product
- Implemented RESTful web-services utilizing Java JAX-RS framework to provide bug tracking information
- Deployed an NLP time series Recurrent Neural Network model to analyze context of user entered bug report and recommended potential duplicate issues existing in the system

### 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 to provide dev teams the platform to create customizable web applications and deliver large scale accounting information
- Designed and deployed an application with Java, Python, and MongoDB to generate daily reports on Client Transactions
- Facilitated faster response times of data-intensive APIs by optimizing fragments of code and leveraging concurrency
- Oversaw all aspects of the software development lifecycle, from requirement gathering to production deployment

## PROJECTS

### Data Analysis using Deep Learning

- Detected presence of any spoiler content in movie reviews by developing a bi-directional LSTM RNN model
- Utilized NLP techniques to process the data and analyze the sentiment of the user entered review to analyze the similarities of reviews with actual spoiler content and predict possibility of spoilers
- Perfected the model with 87% accuracy and 80% recall rate in detecting a review with actual spoilers

### E-Commerce Tracker Web Application

- Developed Java web application to monitor product prices on multiple e-commerce websites
- Implemented a JSoup crawler to read web page contents and a scheduler to continuously monitor multiple websites in a multi-threaded environment to extract best prices on products for interested users
- Deployed the application on docker with MySQL database and Spring-security for authentication

### Smart Stick for Visually Challenged

- Constructed a smart walking stick connected with an Android application to detect potholes, identify obstacles, provide voice-based navigation and gesture detection for assisting the visually impaired in commuting
- Devised algorithms to detect potholes and obstacles using ultrasonic sensors and Arduino

### Neural Network Implementation

- Coded a Neural Network from scratch in R language to analyze Pima Indian diabetic dataset and make recommendations

### Open Source Contribution—Expertiza

- Developed a module to track deadlines of staggered assignments as a contribution to Ruby on Rails based Expertiza website
- Implemented code to assign weights on individual questions on a test and compute scores considering the weights

## EXTRA CURRICULARS

### LexisNexis Hackathon, 2019

- Encouraged and assisted young voters of US in election process by implementing a Dialogflow chatbot with sentiment analysis to understand user questions and respond to user queries

### MathWorks Codechella challenge, 2020

- Secured second place in a competitive programming challenge on MATLAB programming, organized by MathWorks.