SRUJANA RACHAKONDA

Boston, MA | srachak@ncsu.edu | 919-888-8175 | srujana13.netlify.app | github.com/srujana13 | linkedin.com/in/srujana13

EDUCATION

North Carolina State University, Raleigh, NC | Master of Computer Science | GPA: 4.0/4.0 Dec 2020

Courses: Design Analysis of Algorithms, Object Oriented Design, Software Engineering, Database Management Systems, Automated Learning and Data Analysis, Algorithms for Data Guided Business Intelligence, Neural Networks & Deep Learning, Natural Language Processing

Jawaharlal Nehru Technological University, Hyderabad, India | Bachelor of Technology in Computer Science | 82.16% May 2018

TECHNICAL SKILLS

Languages:	Java, Python, Ruby, C++, C, R, MATLAB
Databases and Operating Systems:	SQL, NoSQL, Apache Solr, Unix/Linux, Windows
Frameworks and Packages:	Ruby on Rails, Spring Boot, JOOQ
Tools and technologies:	Git, Perforce, Docker, Maven, Rest APIs, AWS
Web:	HTML, CSS, JavaScript, ReactJS

WORK EXPERIENCE

Software Engineer | MathWorks | Natick, MA Feb 2021 – Present

- Developed a feature to import/export course content to support localization of online courses offered by MathWorks.
- Developed web application and automated job powered by Spring Boot and React JS for managing access to business applications.
- Implemented restoring deleted courses on MATLAB Grader, a Ruby on Rails app and added multiple bug fixes and enhancements.
- Upgrading MATLAB Grader, a java application from Hibernate to JOOQ.

Intern in Engineering Development Group | MathWorks | Natick, MA May 2020 – Aug 2020

- Extended Swagger CodeGen open-source project to support MATLAB and generated API clients from API Docs in Yaml/Json. Encapsulated generated API clients into a toolbox leveraged by multiple teams.
- Developed Rest APIs in Ruby on Rails leveraging Apache Solr, documented with OpenAPI Spec and augmented Swagger UI.
- Built an automated framework for validating API doc in Java and REST Assured, triggered tests using TeamCity.

Graduate Teaching Assistant | Object Oriented Design & Compiler Design| NC State University | Raleigh, NC Aug 2019 – May 2020

- Prepared assignments, projects and exams for over 100 students. Conducted weekly office hours and mentored student projects.

Quality Assurance Engineer | Amazon | Hyderabad, India Jul 2018 - Jul 2019

- Developed a service automation framework in Java using TestNG and a UI automation framework using protractor.
- Reduced manual testing efforts by 70%. Designed APIs to aid test-data generation for automated testing.

ACADEMIC PROJECTS

Databases – Parking Lot Application (github)

- Designed a database system for a university parking lot application. Developed SQL Scripts for initial setup, Spring-Boot framework and OJDBC to facilitate interactions from UI, and Maven for package management.

Web Development – Peer Review System (Open Source) (github)

- Added functionality to an online learning portal, for students to rate bookmarks contributed by peers used for awarding extra credit
- Developed a new question type for performing reviews, leveraged ruby on rails MVC framework and deployed the app on Heroku

Python – Gits, Command Line Tool (github**)**

- Developed a wrapper for git to simplify contributor complexity. Utilized Travis CI for CI/CD, flake8 for style checking and Pytest

Deep Learning -- Terrain Identification for Time Series Data

- Implemented an LSTM model with shifting and down sampling the data to achieve an F1 score of 0.868, a signification improvement over random forest baseline which gave an F1 score of 0.39. Compared results with techniques such as SMOTE and weighted loss.

Natural Language Processing – Sentiment Analysis

- Performed sentiment analysis on a crowd sourced movie review dataset with doc2vec model for vectorization pre-trained on IMDB movie review dataset. Compared results against other vectorization techniques such as count vectorization and word2vec models

Data Science and Machine Learning -- Prediction of Parkinson's Disease Progression (github)

- Predicted the Total UPDRS score based on 6000 records from the Parkinson's telemonitoring dataset using various regression techniques. Achieved a minimum MAE of 0.415 using PCA with a multi-layered perceptron model
- Determined an optimum threshold value of 15 for motor UPDRS score discriminated by dysphonia measurements