# **KUSHAL SHANKAR RAJ**

#### PROFESSIONAL SUMMARY

- A self-motivated IT professional skilled at developing complex solutions, possessing strong creative thinking skills, high energy and integrity. I'm dedicated to constantly improving tools and infrastructure to maximize productivity and quickly respond to the changing needs of the business.
- Furthermore, I demonstrate the capability to work as a Full Stack Developer using frameworks like Angular and Spring from the technical projects I completed during my master's program.

#### **WORK HISTORY**

## Graduate Teaching Assistant, 07/2019 to Current

The University of Alabama In Huntsville - Huntsville, Alabama, USA

Assisted professors by performing grading, teaching and teachingrelated duties for undergraduate level courses such as

- Data Structures
- Java Programming
- Analysis of Algorithms

Assisting students in achieving completion of objectives. Providing regular, accurate and timely feedback to students relative to their performance. Providing supervising instructor information on each student's achievement and progress to assist the instructor in the evaluation of each student.

## **PROJECTS**

#### **Facebook clone using Angular**

- This Application is a clone of face book which allows users to chat with other users online. Application is developed using Angular, JavaScript, HTML, CSS and Firebase as a backend rest API.
- Used material module in order to display the image cards of users and messages online. Implemented angular routing for navigation between pages. Features like creating an account, chatting with other online users, login and logout are also included.

GitHub: <a href="https://github.com/kushalsec043/Facebook-clone.git">https://github.com/kushalsec043/Facebook-clone.git</a>.

#### **Electrode - The Electronics Shopping Web App using Spring MVC**

- Electrode is an electronics shopping web application which allows users to add items to their cart which they wish to purchase. Items in cart can be removed anytime as the information is preserved on a database. Application is developed using Spring, Hibernate, JPA, MySQL

#### CONTACT

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GitHub:

http://github.com/kushalsec043

#### SKILLS

- Programming Languages: Java, C++, Python.
- Web: JavaScript, TypeScript, HTML5, CSS, Bootstrap, Node.js.
- SDLC : Agile/Scrum, Waterfall, Iterative, Evolutionary Models.
- Web Frameworks: Spring, Spring Boot, Spring MVC, Hibernate, Angular.
- DBMS: MySQL, Oracle, MongoDB.
- Operating Systems : Windows, Linux.
- Version Control Systems : Git, Bitbucket.
- Tools and Software: Eclipse, Maven, Spring Tool Suite, Postman, Junit, Mockito, VS Code, Jupiter, MySQL Workbench.
- Cloud: AWS, Heroku.

#### **EDUCATION**

Master of Science, Computer Science, 05/2021

University of Alabama In Huntsville -

Huntsville, Alabama, USA

GPA: 3.72/4.0

Work bench, JSP, CSS, HTML. Integrated user authentication manually using sessions. Server-Side programming using Spring MVC and Hibernate as an ORM tool to interact with MySQL database. Many to Many mapping relations between different objects implemented using hibernate mapping relations.

GitHub: <a href="https://github.com/kushalsec043/Electrode-App.git">https://github.com/kushalsec043/Electrode-App.git</a>

#### Shopping and Recipes List Web App using Angular and Spring Rest API

- This application provides options for users to create a recipe, save ingredients from recipes to shopping list, edit a recipe and add ingredients for recipes the user wishes for. Application developed using Angular, Spring, Hibernate, TypeScript, HTML, CSS, MySQL Work Bench.
- Created class repositories for JPA implementation. Used Hibernate to query the database and perform other CRUD operations. Postman to test the crud operations like get, post, put and delete operations.
- Additional feature where registered users can chat with other users to get information on recipes and ingredients.

GitHub: <a href="https://github.com/kushalsec043/Shopping-Recipe.git">https://github.com/kushalsec043/Shopping-Recipe.git</a>

### Covid-19 Tracker Web App using Angular JS

- Covid-19 tracker is a web application that displays the number of covid19 cases all over the world. Application is developed using Angular, CSS, HTML, Bootstrap3, JavaScript and ng2 Semantic UI for data display.
- Used ng2 google charts to display pie chart on the percentage of cases in each country. Also, users can select a country to view the number of confirmed cases, deaths and active cases. Implemented http requests using http module and included routing features for navigation.

GitHub: https://github.com/kushalsec043/Covid19-Tracker.git

#### Flight Fare Prediction Web App with Deployment using Heroku

- Flight fare prediction is a flask web app which predicts fare of a Flight ticket. Application developed using python libraries like numpy, pandas, matplotlib, seaborn. Did implement one hot encoding to handle categorical data that are not in any order. Used Extra Trees Regressor as the model to get the necessary fare prediction. Used metrics from sklearn to get mean absolute error and root mean squared error to analyze prediction results.

Website: https://flightprice123.herokuapp.com/predict

#### **Stock Sentiment Analysis using News Headlines**

- Import, explore, clean, standardize and model the stock sentiment analysis using news headlines with a Random Forest Classifier to predict the increase or decrease in stock price as accurately as possible. Count vectorizer to implement bag of words for the headlines. Used Random forest classifier as the model to get the necessary predictions. Libraries like classification report, confusion matrix and accuracy score to check accuracy. Model did provide an accuracy of 90 percent.

Bachelor of Science, Electronics and Communication, 05/2017 Sir M Visvesvaraya Institute of Technology - Bangalore, Karnataka, India

GPA: 3.6/4.0

#### **PUBLICATIONS**

- NCIC3 (Publication at Sir MVIT Conference)-"Development of Android based Remote Data Acquisition" National at the Conference on Information. Communication. Controls and Computing.
- Objective of the paper is to detect hazardous gases in the field of mining and to report the environmental parameters to monitor and safeguard people working at greater depths.

#### **ACOMPLISHMENTS**

- Certificate for publication authored by Kushal Shankar Raj paper published in the Journal of Advanced Electrical and Electronics Engineering (IJAEEE) in Volume 6 Issue 1-2 in the year 2017 for National Conference.
- Volunteered for Event Management Conducted at Sir MVIT. Volunteer Certificate for Cultural Forum of Sir MVIT Kalanjali.
- Certificate for Participation in project exhibition at Sir MVIT 2017.
- Certificate for Participation and presented paper titled "Development of Android Based Remote Data Acquisition" on 17<sup>th</sup> May 2017.
- Field trip Visit to All India Radio Station at Bangalore.