

AKSHAY KAJALE

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EDUCATION

Master of Science in Computer Science, San Jose State University, CA (GPA:3.62/4.0)

May 2021

Bachelor of Engineering in Computer Engineering, University of Pune, India (GPA: 3.3/4.0)

July 2018

Coursework: Machine Learning, Data Analysis, Intelligent Systems, Cloud Computing, Design and analysis of Algorithm, NoSQL Databases, Data Structures, Object Oriented Design, Web Development

SKILLS

- **Programming Languages:** Python, Java, C++, C, R, JavaScript, Shell Script
- **Frameworks and Libraries:** Spring Boot, Maven, Mendix(**Certified Rapid Developer**), Hibernate, JDBC, Selenium, Microsoft Office
- **Databases:** Oracle Database 12c, 11g, MongoDB, MySQL, PostgreSQL, Cassandra
- **Web Technologies:** HTML5, CSS3, JavaScript, jQuery, REST, SOAP, Tomcat, PHP
- **Data Visualization:** Tableau (**Certified Desktop Specialist**), PowerBI, Google Studio, Matplotlib, Plotly, MS Excel, MS PowerPoint
- **Tools:** git, SVN, Postman, VMware, Jenkins **Cloud Platform:** AWS (EC2, EC3, S3), Google Cloud (GKE), Docker

WORK EXPERIENCE

Graduate Teaching and Research Assistant, San Jose State University, California

Aug 2020-Present

- Currently mentoring undergraduate students on **Object Oriented Design** and **Artificial Intelligence** concepts.
- Developing a **recommendation system** based on student's academic pattern using **LSTM** model and deploying it Google Cloud.
- Designed schema in **MySQL** based on the course structure provided by instructor and automated the population of the data filling.
- Integrating **Canvas** with recommendation system to automate the data extraction and recommend the possible path to improve grades.

Junior Full Stack Engineer Intern at Equinix, Sunnyvale California

May 2020-Aug 2020

- Migrated Equinix internal **remedy** application to **Spring Boot** microservice architecture which increased the overall performance by 15%.
- Implemented **Spring Boot** annotations to provide an easier way to maintain the code.
- Migrated the AngularJs application to **Mendix** to remove the tenured dependency with JavaScript.
- Developed **REST API's** to perform CRUD operations on Equinix's remedy application.

Associate Software Engineer at Accenture, Pune

Jan 2019-July 2019

- Engineered backend development for Accenture's Life Insurance Platform using **Java/JavaEE** with **Spring Boot** and OOP.
- Ensuring smooth deployment of code on Production Environment by using concepts of **MAVEN** and **SVN**.
- Collaborated with Business Stakeholders and to establish and deliver **benchmark KPI's** for overall business development.
- Translated business requirements into Oracle **SQL** queries and revised database designs increasing overall efficiency by 33%.
- Ensuring smooth deployment of code on Production Environment by using concepts of **Maven** and **SVN**.

Intern at CodesCastle Software Pvt Ltd, Pune

Dec 2017-Jan 2018

- Collaborated with engineers and customers to launch and implement product features increasing user conversion rates by 30%
- Translated business requirements into **MySQL** queries and revised database design increasing overall efficiency by 33%.
- Developed app integration with REST and other API's for Google Maps, social media logins, payment processors, and other services.

ACADEMIC PROJECTS

Malware Classification Using ML and DL techniques (scikit-learn Tensorflow, Keras, NumPy, pandas, seaborn)

Mar 2020-May 2020

- Extracted byte vectors and Word2Vec embeddings from hex represented files of 7 malware families.
- Implemented **Random Forest, OneVsRest, MLP, LSTM** and **CNN** classifiers and achieved accuracy of 97.4% on unlabeled data.
- Performed 5-fold cross validation and Implemented Grid Search on various parameters for **Hyperparameter Tuning**.
- Performed Data Visualization and Compared accuracies using different visualization plots like **Bar Graphs** and **Box plots**.

MongoDB Sharding and Replication Implementation (AWS EC2, MongoDB, VPC, Cloudwatch)

Feb 2020-Mar 2020

- Deployed a 4 shard, 3 replica set cluster in the AWS cloud with each shard having 3000 records
- Developed shell script to automate the process of replica set creation in AWS instance

Speech Accent Recognition Using ML and DL techniques (scikit-learn, TensorFlow, Keras, NumPy, pandas, BeautifulSoup)

Feb 2020-Mar 2020

- Build a classifier using **Keras** and **Tensorflow** to predict the native country of the person based on spoken English accent
- Implemented ML and DL techniques **KNN, OneVsRest, RF, Logistic Regression, CNN** and achieved maximum accuracy of 89%.
- Preprocessed 2400 audio samples to classify accents into British, Arabic and Mandarin using Support Vector Machine and MFCC.
- Performed Exploratory Data Analysis to figure out why Mandarin samples achieved higher accuracy and British achieved lower.

Movie Recommendation System (Java, MongoDB, Spring Boot, AngularJS, HTML5, CSS3)

Feb 2020-Mar 2020

- Developed a web application that recommend appropriate movies to different users using spring boot framework.
- Developed REST API's to perform CRUD operations like adding movies, get ratings, top 10 movies, and list similar genre movies.
- Developed a Web crawler in Java to collect 100,000 movies information from IMDB.com