RAJAT SINGH

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EDUCATION

Arizona State University | Master's in Computer Science **|** Tempe, AZ   **Aug 2019 – Apr 2021(Expected)**
Relevant Courses: Statistical Machine Learning, Mobile Computing, Social Media Mining
Vellore Institute of Technology | Bachelor's in Computer Science | India | CGPA: 8.44/10   **Jul 2013 - Apr 2017**

TECHNICAL SKILLS

Programming Languages: Python, C, C++, Java, Ruby, PHP, SQL, JavaScript, ReactJS, HTML, CSS, jQuery.
Frameworks and Tools: Android, Flask, Django, BPM Flowable, Celery, Spring Boot, Nginx, Gunicorn, Jenkins.
Data Science: Numpy, Pandas, Keras, Sklearn, Matplotlib, TensorFlow.
Others: Git, Amazon Web Service (SNS, SQS, Lambda), ElasticSearch, Kibana, Jira, Confluence.
Certifications: Data Structures and Algorithm(IIT Delhi), Machine Learning(Stanford, Coursera)

PROFESSIONAL EXPERIENCE

Kuliza Technologies Pvt Ltd, Bangalore – Software Engineer   **Jul 2017 – Jul 2019**
- Designed and developed a digital lending website that was used by more than 200,000 customers.
- Wrote credit engine rules that evaluate the customer credit profile and provide them their loan eligibility.
- Collaborated with the Data Science Team of ABFL to develop a credit risk analytics system that validates in-house credit risk models. This product increased the loan assessment by 60%.
- Implemented many third-party integrations like IMPS(Immediate Payment Service)etc, engineered and implemented supported features like user claiming rewards, digital checks, etc.
- Actively involved in the project Go-live phase and mentored 2 summer interns with product insight from tech and business point of view.
- Tech Stack: Django, Spring Boot, BPM Flowable, Nginx, Gunicorn, Kibana.

Kuliza Technologies Pvt Ltd, Bangalore– SE Intern   **Jan 2017 – June 2017**
- Re-designed micro services capturing frontend and backend events for app analytics. This was part of an insurance app.
- For the new microservice, collected the data through REST API calls from the sources, analyzed them to detect failures and visualized the result in Kibana.
- Implemented enhancements on an app that significantly improved functionality and speed. Worked upon SQL query optimization which reduced the overall query execution time from 25 MS to 8 MS.
- Successfully migrated the Insurance app from a legacy system to a new robust system, that reduced maintenance costs and unblocked a crucial API release.

ACADEMIC PROJECTS

Customized Hybrid DBMS Package(Submission Link**)**   **(ASU – Spring 20)**
- Built a hybrid database that is similar to Google's BigTable by extending the functionalities offered by a relational database system - Minibase which is an open-source RDBMS.
- Implemented a typical map by replacing tuples for data storage and ensured data versioning as per timestamps of insertion.
- Performed load testing by querying 50,000 records in the database and varying the buffer pool to estimate various bottlenecks involved in the bulk insertion of data

American Sign Language Gesture Detection (Submission Link**)**   **(ASU – Fall 19)**
- A video-based training data was processed to extract Human Pose Skeleton key points using TensorFlow's PoseNet library.
- Trained a Multi-layer Perceptron (MLP) to classify the American sign language.
- For the test data videos, we obtained an accuracy of 87% which was increased further to 91% when we used better training videos where sign language gesture was clear.
- Tech Stack used - Python, Javascript, Tensorflow, MySQL, HTML, CSS.

MathMates App (Submission Link-1**)(**Submission Link-2**)**   **(ASU - Fall 19)**
- An Android app that lets students collaborate on solving mathematical problems based upon preferences on maths topics like Discrete Mathematics, Linear Algebra, etc. This app encourages learning maths through collaboration.
- This app has features like user Authentication, finding similarity of users by preferences matching based on user clustering Algorithm, etc.
- Tech stack used -Java, Django, Google Firebase(Push Notification service), Nginx, Gunicorn.
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