VAIBHAV SACHDEVA

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EDUCATION

Master of Science in Computer Science and Engineering **September 2022 - June 2024 (Expected)**
Santa Clara University Santa Clara, California
CGPA: 3.71/4.00
Coursework: Design and Analysis of Algorithms, Object Oriented Analysis and Design, Advanced Operating Systems

Bachelor of Technology in Electronics and Communication Engineering **July 2017 - July 2021**
Shiv Nadar University Uttar Pradesh, India
CGPA: 3.86/4.00
Minor in Big Data Analytics
Coursework: Data Structures, Machine Learning, Data Science, Big Data Technologies

TECHNICAL SKILLS

Programming Languages	Python, JavaScript, TypeScript, C, C++, Java
Web Development	React, Node.js, Webpack, Python Flask, HTML, CSS
Database Management	MySQL, MongoDB
Tools & Frameworks	Google Cloud Platform, Kubernetes, Docker, Grafana, Prometheus, Firebase, Git

EXPERIENCE

Software Development Engineer Intern | CommScope | Sunnyvale, California **June 2023 - September 2023**

- Spearheaded the development of an intuitive CICD Visibility Dashboard using ReactJS, complemented by MySQL and Node.js for seamless data flow. Orchestrated efficient deployment with Docker containers on Google Cloud Platform for scalability.
- Engineered a streamlined process for simultaneous comparison of desired and current states for multiple microservices, eliminating the bottleneck of monitoring one service at a time, resulting in a 50% reduction in workflow time.
- Developed Python scripts for real-time microservices state extraction from Google Kubernetes Engine, delivering up-to-the-minute deployment overviews across diverse environments.
- Enhanced visibility by 60%, offering a comprehensive view crucial for agile decision-making in dynamic environments.

Software Engineer | Dell Technologies | Hyderabad, India **August 2021 - August 2022**

- Developed and enhanced reusable micro frontends, leveraging ReactJS, of the Rate Card Design Center web application, leading to a more streamlined experience for the user to perform CRUD operations on pricing components.
- Collaborated with Design and Business teams to optimize rate card creation through the existing UI, resulting in a 40% reduction in clicks needed for users to create ratecards, and an overall decrease of 25% in rate card creation time.
- Conducted extensive testing of pricing APIs using Postman, seamlessly integrated them with micro frontends, and utilized CI/CD pipelines to deploy them to production and staging environments, ensuring an optimized release process.
- Received an award from senior leadership for displaying a high level of accountability in managing the UI of the Rate Card Design Center application and making significant contributions during engineering/architecture review meetings.

Software Development Engineer Intern | Dell Technologies | Hyderabad, India **May 2020 - July 2020**

- Designed a Grafana dashboard to monitor the delivery of invoices in real-time, enabling enhanced visibility of performance trends over a prolonged period, leading to a 30% boost in team productivity.
- Developed a Python exporter to migrate invoice delivery data from an Oracle Database to Prometheus, allowing real-time selection and aggregation of time series data and providing a better compression ratio for effective data storage.
- Integrated the dashboard with Prometheus and wrote PromQL queries to create multiple dashboard components, enabling users to exhaustively track the reasons behind invoice delivery failure.

PROJECTS

Biometric Facial Recognition **September 2023 - December 2023**

- Implemented a biometric facial identification system using a Siamese Neural Network (SNN), trained on the LFW dataset, capable of extracting facial image features and accurately identifying individuals in images.
- Performed a qualitative comparative analysis between traditional CNNs and the SNN, resulting in the SNN performing better than hyper-parameter-tuned CNNs by a margin of 10%, achieving an accuracy of 98%.

Stock Price Correlation Coefficient Prediction **September 2022 - December 2022**

- Designed and implemented a hybrid deep learning model combining ARIMA and LSTM (RNNs) to predict the correlation coefficient between prices of S&P 500 stocks for future periods, facilitating portfolio optimization for investors.
- Evaluated the performance of the developed model against traditional financial predictive models, achieving superior results with a 50% reduction in mean squared error (MSE), demonstrating high potential for accurate predictions.