

Pininti Vijay Reddy

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Education

- State University of New York at Buffalo**, Buffalo, NY Aug 2023 - Present
- *Master of Science in Computer Science and Engineering*, GPA: 3.917/4
Coursework: Machine Learning, Deep Learning, Algorithms, Computer Security, Operating Systems
- Vidya Jyothi Institute of Technology**, Hyderabad, India Aug 2016 - Aug 2020
- *Bachelor of Technology in Computer Science and Engineering*, GPA: 3.65/4
Coursework: Data Structures, Database Management Systems, Java Programming, Object Oriented Programming with C++, Web Technologies, Cloud Computing, Computer Organization

Skills

Programming Languages: Python, Java, C++
Web Development: HTML, CSS, JavaScript, Bootstrap
Frameworks and Architecture: Spring Boot, Microservices, Django
Database Management: MySQL, PostgreSQL
Data Formats and Transformations: JSON, XML, Dataweave

Experience

- Capgemini, Hyderabad, India** Sep 2020 - May 2023
Senior Analyst
- Implemented features such as client account creation, order processing, and payment options, along with developing ongoing email and SMS communication strategies, mobile number transferring (port-in and port-out) for a telecommunications client.
 - Engineered an adaptive e-sim generator through the integration of Java and MuleSoft technologies for Apple care.
 - Successfully guided and supported approximately 70 junior professionals over a year, fostering their adaptation to and understanding of project goals and standards.
 - Initiated and led the automation of database modifications through REST API, achieving a significant reduction in manual labor by 30% and boosting overall productivity by 25%.
 - Developed and integrated a custom Maven archetype-based plugin, which dynamically generates project structures, resulting in a reduction of manual workload by at least 20% and accelerating project development timelines.
Skills used: Mutual Authentication, Java, Salesforce, REST and SOAP APIs, Maven, Cloud Migration and Security.
- Capgemini, Hyderabad, India** Jan 2020 - May 2020
Software Engineering Intern
- Architected and engineered a dynamic API, capable of displaying comprehensive API data across both on-premise and cloud servers, enhancing data accessibility and system integration efficiency by 40%.
 - Developed a Mule application for real-time synchronization between Salesforce and MySQL, enhancing data consistency and reducing sync time by 35%.
Skills used: HTML, CSS, JavaScript, Bootstrap, REST API, MySQL, Salesforce

Projects

- AlexNet Based Image Classification - Performance Analysis and Optimization Trials** Oct 2023 - Dec 2023
- Implemented AlexNet for image classification, achieving model balance with early stopping and performance evaluation through precision, recall, f1_score, and ROC curve.
 - Experimented with gradient accumulation, learning rate scheduling, and various optimizers, ultimately finding the base architecture to be the most effective with an accuracy of 91%.
Skills Used: Python, PyTorch, Matplotlib, Seaborn, Scikit-Learn
- Enhancing Road Safety Through Predictive Modelling of Motor Vehicle Collisions** Aug 2023 - Dec 2023
- Led the 'NY Motor Vehicle Collision Analysis' project, applying K-means clustering to categorize accidents as severe, moderate, or low, and utilized Naive Bayes for predicting accident severity with 80% accuracy.
 - Compared SVM, KNN, Random Forest, and XGBoost algorithms in identifying key factors of vehicle collisions, enhancing predictive accuracy and aiding in road safety improvements.
Skills Used: Python, Matplotlib, Seaborn, Scikit-Learn, Imbalanced-Learn, Streamlit, Un-Supervised Learning
- DNS Query Spoofing and Poisoning Detection System** Aug 2023 - Sep 2023
- Developed a SCAPY (Python) based application that spoofs DNS queries, redirecting users to a chosen IP address.
- Market Exchange: An Online Trading Platform** Aug 2019 - Feb 2020
- Developed a Java-based system facilitating direct item and service exchanges, eliminating middlemen and enhancing user experience.
 - Built on a scalable microservices framework, handling thousands of daily transactions, ensuring robust performance for a diverse user base.
Skills used: Java, Spring Boot, Thymeleaf, Microservices, Eureka Service, Swagger