

# Vamshidhar Reddy Parupally

Linkedin  
Portfolio

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## Education

- **San Jose State University [GPA : 3.9]** San Jose, California  
*Master of Science in Software Engineering.*  
*Courses: Cloud Technologies, Data Mining, Machine Learning, Enterprise Distributed System, Networking, Virtualization Technologies.*  
*Jan 2022 - Dec 2023*
- **Anurag Group of Institutions [GPA : 3.74]** Hyderabad, India  
*Bachelor of Engineering in Information Technology.*  
*Courses: Object Oriented Programming, MVC design pattern, Software Development Processes.*  
*Aug 2016 - June 2020*

## Skills Summary

- **Programming Languages:** Java, Javascript, Python, SQL, TypeScript, C, C++.
- **Web Development:** MERN Full Stack, AngularJS, ReactJS, NodeJS, REST API / SOAP, HTML, CSS, Flask, Spring Boot.
- **Technologies:** Kafka, Spark, GIT, JIRA, ETL, Kubernetes, distributed systems, OOPS, AJAX.
- **Data Base:** Relational DB, MongoDB, Vertica DB, Cassandra, No SQL and Redis.
- **Others:** AWS, Azure, GCP, DevOps, Docker, CICD, SonarQube, JUnit, Jenkins, Pandas, VS Code, Eclipse, Vagrant, Ansible.

## Experience

- **Tata Consultancy Services - Client Apple** Hyderabad, India  
*Software Developer*  
*2020 - 2022*
  - Reduced data administration time by 30% by building an end-to-end data management tool for product sales to assist Apple sales team, using **React JS, Java, Cassandra** and **Vertica db**.
  - Developed **Kafka** and **Spark pipeline** to handle a large number of orders during NPI, and developed **RESTful APIs** using **Java Spring Boot framework** for accessing the details on the internal sales dashboard
  - Handled User management, authentication leveraging **JSON Web token**, and session management with **Redis cache**.
  - Developed a time series model using **LSTM** algorithms to analyze the no-show rate of appointments at an Apple store.
  - Implemented **Docker containers** and **CI/CD pipelines** in the project, resulting in a 35% reduction in deployment time and a 25% improvement in application performance while effectively utilizing **AWS** and **DevOps** practices to ensure seamless integration and delivery.
  - Assisted in planning, analyzing, designing, and implementing project modules using **Agile (Scrum) Methodology**.
  - Used **Git, Maven, Jenkins**, and **Splunk** for version control, build tool, continuous integration, and error log handling respectively.
  - **Tools and Technologies:** Open AI GPT Models, Spring boot, Java, React JS, Angular, Kafka, AWS (EC2, S3, Load Balancers), Git, Maven, Jenkins, Cassandra DB, Spark streaming, Docker, Redis cache, JSON Web token.

## Academic Projects

- Anomaly detection in PV panels using YOLO
  - Developed an anomaly detection system that utilized the YOLO V8 model, resulting in a 15% increase in detection accuracy.
  - Implemented the ISAAC ROS Image pipeline for image pre-processing and a S3 bucket to store images, enabling easy access.
  - Created an image annotator for efficient annotation of images in YOLO format using Python and Streamlit.
  - Developed a real-time defect monitoring system for solar panels using a Jetson developer kit and integrated camera, enabling users to stream and monitor panel defects via a user-friendly interface
  - **Technologies used:** Python, YOLO V8, NVIDIA ROS Platform, Jetson Developer Kit, React JS, Node JS, AWS S3.
- Autonomous Drone System for Agriculture
  - Developed and implemented an autonomous drone system, providing farmers with a streamlined farm surveying and pesticide spraying solution.
  - Utilized cloud mission planner and Ardupilot simulation to simulate the flight path and ensure efficient drone operation.
  - Designed the system to allow farmers to easily book drone services by registering their farmland geo coordinates.
  - Utilized the UDP, UDPCIP ports, and MAV Link module for communication between drones and the ground control system.
  - **Technologies used:** Cloud Mission Planner, Ardu Pilot Simulator, React JS, Spring Boot, Bootstrap, Sockets, C++.
- Open AI Integration - Salary Analysis Dashboard
  - Created salary analysis dashboard using Stack Overflow Developer Survey data and OpenAI GPT turbo model.
  - Leveraged data preprocessing techniques to clean and transform survey data, ensuring high-quality and reliable analysis.
  - Implemented data visualization techniques to create visually compelling charts, and graphs, for effective salary insights.
  - Collaborated with team to design and optimize the salary analysis dashboard, delivering actionable insights to stakeholders.
  - **Tools and Technologies used:** Python, Open AI Model, Regression Model, GPT Turbo 3.5, Google Co-Lab, Streamlit.

## Clubs

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- **Tau Beta Pie :**
  - Initiation Officer at Tau Beta Pie national engineering honor society
  - Member of Tau Beta Pie national engineering honor society

## Hobbies

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- Badminton, and Bowling