

# Raghothama Rao Pranesha

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## SUMMARY

Software Engineer specializing in automation, testing, DevOps, IT security, and full-stack development. Proven expertise in automated solutions and development with proficiency in Python, scripting, AI models, particularly in NLP and LLMs and AWS to maintain quality standards. Skilled in debugging software products, analyzing test results, and collaborating closely with development teams to resolve complex issues. Experienced in deploying Ansible for automation and creating user-friendly interfaces with Node.js and React.js. Strong background in backend database management, security implementation, and project documentation.

## EXPERIENCE

### **Itron** | *DevOps Engineer– TechOps Automate*

**Sep 2023 – Present**

- Contributed solutions by taking full-time engineering responsibilities from day one despite the intern role.
- Created standards for automation solutions, ensuring consistency and scalability across deployments.
- Automated customer operations by developing PowerShell and Linux bash scripts, Python Robot framework, reducing manual task time from 16 hours to 3 hours, resulting in a 81% improvement in efficiency.
- Deployed automation solutions using Ansible, converting complex CLI commands into user-friendly operations, enhancing operational simplicity and reducing error rates.
- Developed a web interface for Ansible with Node.js and React.js, improving user interaction and system accessibility, resulting in a 25% increase in user adoption.
- Designed and implemented a backend database using MSSQL for configuration management and curator functionalities, ensuring secure and efficient data handling.
- Integrated Active Directory for authentication, enhancing security by restricting access to authorized personnel only, ensuring compliance with organizational policies.
- Implemented VPN requirements for application access, ensuring secure remote connectivity and data protection, leading to a 30% reduction in unauthorized access attempts.
- Developed dynamic architecture visualization for project builds, providing an interactive and detailed view of project structures, improving project management and oversight.
- Facilitated peer, lead, and manager reviews and approvals for projects, streamlining project validation processes and ensuring quality control.
- Generated comprehensive project summaries with download options as PDFs, enhancing documentation and reporting capabilities.
- Configured email notifications for job completions, keeping stakeholders informed and improving communication flow.
- Authored detailed guides for each project with download capabilities, supporting user training and operational consistency.
- Created custom API endpoints, integrated with RabbitMQ and employed proxies throughout backend processing, boosting security and data integrity and deployed containerized builds on to servers using Docker.
- Enabled multi-tasking capabilities on multiple hosts, allowing parallel execution of tasks, reducing total processing time to 1.5 hours, a further 50% reduction.

**Tools used:** Python, RobotFramework, Ansible, Shell scripting, Node.js, React.js, TypeScript, SQL and Azure DevOps.

### **Forcepoint** | *IT Intern - Business Applications*

**Jun 2023 – Aug 2023**

- Collaborated cross-functionally to automate payment processing using Salesforce integrated with Boomi, reducing weekly manual work by 12 hours.
- Rectified a system loophole in company code application post-order completion, using Boomi to save 4 hours weekly.
- Improved Salesforce transaction-level dates on invoices and credit notes across various time zones for enhanced accuracy.

### **Mphasis Ltd, India** | *Software Engineer*

**July 2021 – Jun 2022**

#### **Software Test Automation**

- Enhanced testing efficiency by 94% using TestRail, Python Robot Framework, and Selenium, ensuring comprehensive test coverage.
- Implemented Agile Sprint management practices to streamline the testing process and improve coverage.
- Integrated Jenkins with Jira and TestRail, saving 32 hours weekly on manual tasks.
- Boosted team productivity by enabling focus on critical activities and reducing repetitive tasks.
- Reduced backlogs by 48% with automated performance dashboards using Python, Jira, TestRail, and SQL on Jenkins.
- Provided managers with real-time insights for data-driven decision-making, improving backlog management.
- Automated UI operations with computer vision, cutting manual tasks.
- Further reduced backlogs by 4%, contributing to overall team efficiency improvement.

#### **Automated Dashboard Development: Engineered ETL process and visualizing the data utilizing scalable APIs, optimized data workflows**

- Engineered automated dashboards, updating hourly, by extracting and preparing data from Jira and TestRail with Python, SQL, and API connections, facilitating managerial analysis of backlogs and informed decision-making.
- Integrated the entire process with Jenkins for CI/CD, ensuring real-time updates, and reducing backlogs by 48%, optimizing team performance.
- Streamlined data visualization using various tools, empowering managers with actionable insights for backlog management and performance improvement.

- Developed and deployed Python scripts for data extraction, wrangling, and visualization, contributing to a 48% reduction in backlogs and enhancing team efficiency.
- Implemented automated alert systems to notify managers of critical changes or issues in real-time, ensuring prompt attention and resolution.

## TECHNICAL SKILLS

**Languages:** Python (NumPy, Pandas, Scikit-Learn, PyTorch, PySpark, Selenium), SQL, Git, UNIX Shell Scripting.  
**Web Technology:** HTML, CSS, JavaScript, TypeScript, React.js, Next.js, Node.js, REST-API, Containerization.  
**Frameworks & Tools:** Robot Framework, Ansible, Salesforce, Spark, Docker, Hadoop, Kubernetes, Tableau, TensorFlow, RabbitMQ.  
**Databases:** MySQL, MS SQL, MongoDB.  
**Certifications:** Python, SQL, Data Science Foundation, Cybersecurity Essentials, DevOps Foundations, Google-Gen AI (beginner).

## PROJECTS

### AutoPlat: SaaS Automation Builder

- Developed AutoPlat, a SaaS application for workflow automation. Utilized Node.js, Next.js, TypeScript, Tailwind CSS, Prisma, Neon Tech, Uploadcare, Ngrok, Cron Jobs, Zoo, and Clerk to build a user-friendly interface with drag-and-drop functionality (React Flow).
- Integrated popular platforms such as Discord, Slack, Notion, and Google Drive for seamless automation workflows.
- Implemented a subscription-based billing system using Stripe, allowing users to purchase credits and access the platform's features.
- Designed and optimized database architecture using Prisma and Neon Tech for efficient data management.
- Integrated Uploadcare for file management, enabling users to handle documents and media files within workflows.
- Utilized Ngrok for secure tunneling and testing, providing a safe environment for deployment and debugging.
- Automated task scheduling with Cron Jobs, ensuring smooth workflow execution without manual intervention.
- Incorporated Zoo for scalable backend processing, maintaining performance under heavy loads.
- Implemented Clerk for secure user authentication and authorization.
- Developed comprehensive user documentation and guides, aiding users in utilizing the platform's features.
- Conducted thorough testing and debugging, ensuring functionality and reliability.
- Gathered and analyzed user feedback, iteratively improving the application based on user suggestions.
- Deployed the application using a CI/CD pipeline, ensuring smooth updates and minimal downtime.

### California State Occupation Analytics: Exploratory Data Analysis using Python and SQL

- Data Transformation and Cleaning: Utilized Python (Pandas, NumPy) to rigorously scrutinize and transform California State occupational data, ensuring data integrity and reliability.
- Exploratory Data Analysis (EDA) and Visualization: Led comprehensive EDA using Python (Matplotlib, Seaborn) to visualize trends and patterns in occupational data, extracting actionable insights on demographic shifts and employment trends.
- Long-Term Employment Projection: Applied statistical analysis and time series modeling to forecast future job demand and workforce needs, supporting strategic planning and policy formulation.
- Data-driven Decision Support: Produced insightful reports and presentations for senior management and policymakers, advocating for evidence-based decision-making in economic planning and workforce development.
- Methodology Development and Documentation: Established robust methodologies for data transformation, cleaning, and analysis, documenting workflows and best practices to ensure reproducibility and transparency in analytical processes.

### Smart Vineyard using ML: Enhancing viticulture by implementing Machine Learning

- Spearheaded the development of a highly effective machine learning model for viticulture optimization using Convolutional Neural Network (CNN) algorithm and Python, involving preprocessing and analysis of large datasets.
- Achieved an 87.76% efficiency rate in predicting and optimizing viticulture parameters during simulation.
- Authored this research paper, which was published in the esteemed Journal of Applied Science and Computations, showcasing expertise in machine learning model optimization

### Tailoresume

- Developing an AI-driven application using GeminiAPI and Google AI integrated with AWS to dynamically tailor resumes.
- Utilized Python and LLMs for generating customized resumes based on job descriptions.
- Designed a user-friendly interface to enhance user interaction and customization.
- Deployed on AWS for scalability and secure data handling, ensuring efficient processing.
- Implemented robust data ingestion and preprocessing pipelines to optimize AI model performance.
- Streamlined the job application process by reducing manual edits and improving application relevance.

## EDUCATION

**MS, Information Technology and Management (STEM)** || University of Texas at Dallas || GPA – 3.88 2022 - 2024  
*Related courses: Object Oriented Programming in Python, Database Foundations (SQL & MongoDB), Intelligent Enterprise Systems with SAP, Big Data, Advanced statistics for Data Science, Cybersecurity Fundamentals.*