

GOWTHAM ALASAKANI

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SUMMARY

Results-driven DevOps and deployment professional with experience bridging manufacturing operations and software systems. Proven track record of operating industrial sensor data pipelines, managing AWS cloud infrastructure, and executing end-to-end troubleshooting from browser to infrastructure and database layers. Adept at deployment automation, CI/CD workflows, and collaborating across teams to ensure reliable uptime for plant environments.

EXPERIENCE

DevOps Engineer

Millennium Intech Private Limited January 2024 - December 2024, Chennai

- Designed and maintained scalable CI/CD-style ETL pipelines using Python, SQL, and AWS S3, EC2, and RDS, automating high-volume industrial sensor data ingestion from manufacturing equipment and reducing manual intervention by 40%.
- Managed and optimised cloud infrastructure on AWS EC2 and S3, ensuring high availability, performance monitoring via CloudWatch, and robust data flow across production environments.
- Automated data quality validation workflows using Python, Pandas, and NumPy, enforcing production-grade standards and eliminating pipeline failures.
- Containerised Python processing workloads using Docker, improving deployment consistency across development, staging, and production environments.
- Collaborated with cross-functional engineering teams in an Agile/Scrum framework to deploy analytics dashboards and decision-support platforms with faster release cycles.
- Applied machine learning techniques using TensorFlow to analyse operational patterns, improving system efficiency and reliability and driving a 25% uplift in model accuracy through advanced feature engineering.
- Applied Azure DevOps, Kubernetes, Ansible, and Terraform within the DevOps environment's deployment and infrastructure workflow, using CI/CD pipelines, container orchestration, configuration management, and infrastructure as code to make environments more repeatable and releases more reliable.

Software Development Intern

InternPe January 2022 - July 2022, Bangalore, India

- Developed and tested RESTful APIs and backend logic using Node.js and Express.js, enabling the web application to handle increased traffic and improve overall performance.
- Debugged and resolved software defects, improving application reliability and reducing error rates during integration testing cycles.
- Collaborated with cross-functional engineers to implement feature enhancements using Agile methods and quality-assurance practices, resulting in faster release cycles and higher feature stability.
- Engineered and maintained software applications in Node.js over a 12-week internship, increasing deployment frequency by 30% and supporting seamless end-to-end integration with MongoDB and Docker environments.
- Managed weekly updating of legacy Node.js application modules over 12 weeks, improving codebase maintainability by 25%.
- Executed troubleshooting of backend integration issues weekly throughout the 12-week internship using Node.js, MongoDB, and Docker, reducing critical bug resolution time by 40% and elevating application uptime to 99%.
- Applied problem-solving techniques to diagnose and resolve backend failures during weekly code deployments over 12 weeks using Node.js, MongoDB, and Docker.
- Demonstrated adaptability by rotating between Node.js, Express.js, MongoDB, and Docker to resolve emergent backend issues and implement updates weekly over a 12-week period, reducing deployment downtime by 35% and ensuring rapid response to shifting project requirements.
- Coordinated integration of plant operations data workflows into the software platform throughout the 12-week internship using Node.js, Express.js, and MongoDB, improving real-time monitoring by 30% and optimizing process visibility for engineering teams.

Web Application Developer - Freelance Assignment

Oasis Infobyte April 2023 - June 2023, Hyderabad, India

- Designed and delivered responsive web applications using HTML, CSS, JavaScript, React.js, and Bootstrap, ensuring seamless front-end usability and cross-browser stability.
- Integrated RESTful APIs and backend services while performing end-to-end troubleshooting from browser to infrastructure, network, and database layers.
- Deployed and managed virtual servers on AWS EC2 for freelance web projects, automating CI/CD pipelines with GitHub Actions to achieve high uptime and expedite delivery cycles by 30%.
- Configured AWS EC2 instances, security groups, and application environments to streamline deployment cycles and ensure consistent configuration management.

Data Analyst - Machine Learning

Phoenix Global April 2023 - January 2024, Hyderabad, India

- Developed and optimised supervised machine learning models, achieving 8% accuracy improvement over baseline predictive benchmarks.
- Performed exploratory data analysis, feature engineering, and data preprocessing to enhance model reliability and training effectiveness.
- Utilized Python (Pandas, Scikit-learn) and AWS EC2 to train, test, and evaluate models on structured datasets, cutting model iteration time and ensuring consistent performance.
- Evaluated model performance using statistical metrics and partnered with teams to translate insights into business recommendations.

Data Scientist

Chicago Education Advocacy Cooperative June 2026 - Present, Remote

- Engineered and maintained ETL pipelines in Python and JavaScript while translating stakeholder feedback into technical data solutions supporting 1,600+ K-12 and adult learners.
- Collaborated directly with program leadership to align data reporting with strategic mission goals, presenting clear analytics insights through Tableau dashboards and SQL reporting.
- Coordinated cross-departmental analytics projects, establishing robust analytics frameworks that enabled monthly evaluation of program outcomes and stakeholder satisfaction KPIs.

PROJECTS

Plant Disease Detection - Machine Learning Project

Northwest Missouri State University Python, TensorFlow, OpenCV, Pandas,

- Led end-to-end design and deployment of a machine learning solution, improving disease classification accuracy by 25% through dataset expansion and feature engineering.
- Optimised data ingestion and algorithm workflows to reduce processing latency by 40%, deploying the solution across 50+ farms to enable data-driven operational decisions.

EDUCATION

Master of Science (M.S.), Applied Computer Science

Northwest Missouri State University • Maryville, MO • August 2024

Bachelor of Technology (B.Tech), Computer Science and Engineering

GITAM University • May 2024

CERTIFICATIONS

- Python for Data Science and AI; Introduction to Software Testing — University of Minnesota, Coursera (July 2023)
- Technical Support Fundamentals — Google, Coursera (August 2021)
- Fundamentals of Network Communication — University of Colorado System, Coursera (September 2021)

INVOLVEMENT

- Core Member, Computer Society of India (CSI), GITAM University — January 2022 - May 2024

AWARDS & HONORS

- Best Presenter, GITAM University and Brainovision Solutions India Pvt. Ltd. (February 2023) — recognised at an industry workshop on Cloud Computing (AWS).

SKILLS

Programming Languages: Python, Java, SQL, JavaScript, HTML, CSS, C, C++

Frameworks & Libraries: Spring Boot, React.js, Node.js, Express.js, Bootstrap, TensorFlow, OpenCV, NumPy, Pandas

Databases: MySQL, PostgreSQL, MongoDB

Cloud Platforms & DevOps: AWS (EC2, S3, RDS, IAM, CloudWatch, Lambda), Azure DevOps, Docker, Kubernetes, Jenkins, GitHub Actions, Ansible, Terraform

Data Engineering Tools: ETL Pipeline Development, Data Modelling, Data Warehousing, Time-Series Data Processing, Data Quality & Validation, Performance Optimization