

Bhavana Devulapally

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EDUCATION

University of Pittsburgh <i>Master of Science in Information Science</i>	Pittsburgh, United States April 2025
• Coursework: Algorithm Design, Machine Learning Using R, Cloud Computing, System Design	GPA: 3.8/4.0
Osmania University <i>Bachelor of Engineering in Computer Science</i>	Hyderabad, India July 2023
• Coursework: Web Development, DSA, Software Engineering, OOP, Computer Networks	GPA: 8.7/10.0

WORK EXPERIENCE

Software Engineer NCR Corporation, Hyderabad, India	Feb '23 - July '23
Cash Services- Self-Checkout Application (Python, ReactJS, Docker, Kubernetes, JavaScript)	
<ul style="list-style-type: none">Developed a user-friendly self-checkout application, driving improvements in the cash services sector.Containerized the application by creating Docker images and created a deployment pipeline to deploy the application on self-hosted machines. Made the deployment easy to manage by integrating the pipeline with Ansible playbooks.Reduced the deployment processing time by 27% by using Kubernetes for efficient cluster management.	
Shared Template - Task Standardization and Performance Enhancement (Git, Jenkins, CI/CD Pipelines)	
<ul style="list-style-type: none">Improved the backend performance by 32% by using a shared template to streamline task execution across multiple jobs.Enhanced the latency of the workload by 75%, which helped the partnering clients Walmart, Toshiba and CaseysUSA.Added testcases and increased the test coverage to 90%, reducing production bugs by 50% and easing on-call workload. Prepared detailed technical documentation supporting deployment and system processes.	
Software Developer ADP Private Limited, Hyderabad, India	Jun '22 – Dec '22
Real-time Deployment Status Tracker (Angular, Django, Typescript)	
<ul style="list-style-type: none">Developed a web application to monitor team deployment status, displaying business critical metric details such as health check status, configuration version s, image versions, and logs. Optimized information flow reducing manual effort for SRE team members by automating checks.Integrated APIs for seamless backend data retrieval, enhancing real-time updates on the frontend.Enhanced operational efficiency by 81% by providing real-time deployment insights, boosting team productivity.	

PROJECT EXPERIENCE

YouTube Content Safety Monitor (ML, NLTK, Python, BERT, YouTube Data API v3) - Link	
<ul style="list-style-type: none">Developed a BERT-powered video classification model with built-in profanity detection and topic analysis using NLTK, achieving 83% accuracy for enhanced parental monitoring of YouTube content.Built a scalable data ingestion pipeline by capturing network traffic through a Proxy with SSL interception, indexing over 10,000 logs into ElasticSearch for efficient content tracking.	
Predictive Paint Color Analysis – PPG (Linear Regression, Ridge, Lasso, Gradient Boosting, Random Forest) - Link	
<ul style="list-style-type: none">Developed and optimized classification and regression models to predict outcomes based on RGB color attributes. Achieved classification accuracy of 89% and regression R² score of 92% after extensive hyperparameter tuning.Employed advanced techniques like data preprocessing (missing values, outlier removal, normalization), PCA, and visualized insights with correlation matrices, box plots, scatter plots. Used grid search and cross-validation for optimization. Got an accuracy of 92% by refining the model using the LOGIT-transformed response.	
Panther Training Club Website (MongoDB, Express.js, React.js, Node.js) - Link	
<ul style="list-style-type: none">Developed a full-stack fitness web application implementing role-based access for members, trainers, and admins.Designed secure JWT-based authentication, responsive UI, and RESTful APIs for seamless booking, profile management, and admin controls.	
Center for Comparative Archaeology Website (Flask, MySQL, HTML, TypeScript, JavaScript) - Link	
<ul style="list-style-type: none">Developed a microservices-based archaeology database system with optimized SQL (MySQL) and NoSQL (MongoDB) schemas, enhancing collaborative data access by 55% and streamlining researcher contributions through efficient CRUD operations.Enabled accurate data tracking with timestamped entries and advanced filtering, improving retrieval efficiency by 45%.	

TECHNICAL SKILLS

Programming & Web Languages	Python, Java, C++, React, Node.js, Vue.js, Express.js, Angular, HTML, AWS, Typescript
Database	MySQL, MongoDB, NoSQL, Cassandra
Libraries & Frameworks	Pandas, NumPy, GitHub, Rest API's, XML, Jira, Linux, SDLC, Agile, PyTorch, TensorFlow
DevOps & CI/CD	Kubernetes, Docker, Jenkins, Ansible
Certifications	Top 50 Worldwide in the CodeChef LunchBox Hackathon, Introduction to ML – NPTEL IIT Madras, “Neural Networks and Deep Learning” by Coursera, “Convolutional Neural Networks” by DeepLearning.ai, “Sequence Models” by Coursera.