

Bhavana Devulapally

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EDUCATION

University of Pittsburgh

Master of Science in Information Science

• **Coursework:** Algorithm Design, Machine Learning Using R, Cloud Computing, Databases

Pittsburgh, United States

April 2025

GPA: 3.8/4.0

Osmania University

Bachelor of Engineering in Computer Science

• **Coursework:** Web Development, DSA, AI, Software Engineering, Deep Learning, OOP using Java

Hyderabad, India

July 2023

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)

- 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)

- 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, JavaScript, Typescript)

- Developed a web application to **monitor team deployment status**, displaying business critical metric details such as health check status, configuration versions, 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](#)

- 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 (Linear Regression, Ridge, Lasso, Gradient Boosting, Random Forest) - [Link](#)

- 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**.

Football Match Prediction Project (Python, Random Forest Algo, NumPy, Pandas) - [Link](#)

- Built a football match outcome prediction model for the SheInnovates Hackathon, utilizing the **Random Forest algorithm** to achieve **93% accuracy**.
- Applied **data cleaning, feature engineering, and model training**, optimizing performance through **hyperparameter tuning** and **cross-validation** for enhanced predictions.

Center for Comparative Archaeology Website (Flask, MySQL, HTML, CSS, JavaScript, Typescript) - [Link](#)

- 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, C++, JAVA, R, React, Node.js, Vue.js, Express.js, Angular, HTML, PHP, AWS

Database

MySQL, MongoDB, SQL, Cassandra

Libraries & Frameworks

Django, Flask, Pandas, NumPy, Git, Rest API's, XML, TensorFlow, PyTorch, UI/UX, Agile

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, "[Sequence Models](#)" by Coursera, "[Convolutional Neural Networks](#)" by DeepLearning.ai