

# SRI HARSHITHA BHAVANA

Software Engineer

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**Summary**

Software Engineer with experience in building data engineering pipelines, deploying ML models and developing scalable cloud-native applications. Skilled in Python, Java and cloud technologies including GCP, AWS and Azure. Proven track record of delivering data-driven solutions in multiple domains, improving system performance and decision-making through automation and predictive modeling.

## Education

- Clemson University | Master of Science , Computer Science (GPA:3.65)

August 2023 – May 2025

## Work Experience

### •Heartland Community Network

Raleigh, USA

Software Engineer Intern

July 2025 – Present

- **Backend & Platform Development:** Design and implement scalable backend services in Python to support a cloud-native healthcare platform. Build and maintain secure APIs, optimize service performance, and automate data extraction and ingestion workflows into BigQuery for real-time application use cases.
- **Full-Stack Development & System Integration:** Collaborate on both frontend and backend components to integrate data services with user-facing applications. Develop and enhance features for internal dashboards using Tableau, streamline cloud deployments via SSH on Linux VMs, and ensure system reliability, scalability and maintainability.

### •Clemson University

Clemson, USA

InfoEd Programming Assistant

January 2025 – May 2025

- Led the transition from paper-based research review processes to web services for three research departments, developing backend services using Java and Spring MVC, and building the frontend with React, reducing administrative efforts and improving approval times by 70%.
- Leveraged Python and Tableau to analyze and visualize large-scale datasets, enhancing research review efficiency by 45% through advanced data analytics techniques.

### •Ernst and Young LLP

Hyderabad, India

Software Engineer

June 2022 – July 2023

- **Security Enhancement and System Integration:** Led backend development efforts to strengthen system security, resolving OWASP and Fortify vulnerabilities, resulting in a 20% reduction in security issues. Migrated monolithic applications to Azure microservices and integrated standalone modules into core infrastructure through strategic API management and CI/CD automation using GitHub Actions, cutting deployment cycles by 40%.
- **Performance Optimization and Quality Assurance:** Optimized backend and database performance, boosting system speed by 25% through memory and query optimization. Developed and deployed 10+ enterprise modules using Java, Spring Boot and REST APIs, while implementing QA testing and performance tuning, improving delivery time by 30% and overall system throughput by 35%.

### •Cognizant Technology Solutions

Hyderabad, India

Data Engineer Intern

February 2022 – June 2022

- **Data Engineering & ML Pipeline Development:** Designed and implemented end-to-end data processing pipelines using Python, SQL, and Databricks to clean, transform, and standardize large healthcare and finance datasets. Developed automated ETL workflows and feature engineering steps to support downstream ML models and reporting layers.
- **Machine Learning Integration & Visualization:** Built and trained regression and classification models to extract actionable business insights, improving forecast accuracy by 20%. Integrated model outputs into interactive dashboards (Power BI) and automated daily reporting processes, reducing manual effort by 35% and accelerating decision-making.

## Technical Skills

- **Languages:** Java, Python, C, C++, TypeScript, JavaScript, SQL
- **Frontend:** React, Angular, Flutter, HTML5, CSS3, WebSocket, Postman
- **Backend & APIs:** Spring Boot, Spring MVC, Node.js, Ruby on Rails, RESTful APIs
- **Databases & Cloud:** MySQL, PostgreSQL, MongoDB, AWS (S3, EC2), GCP, Azure
- **DevOps & Tools:** Docker, Kubernetes, Jenkins, GitHub Actions
- **Security:** JWT, OAuth 2.0, TLS/SSL, OWASP, Fortify, Bcrypt
- **Machine Learning & Data:** TensorFlow, scikit-learn, NLP, Apache Spark, Databricks, Power BI
- **Certifications:** ServiceNow, GCP, Microsoft - Azure Data Engineer Associate , Salesforce Certified AI Associate , Dynamic 365 Fundamentals (CRM)

## Projects

### • AI-Driven Insurance Premium Prediction using Machine Learning

Designed and trained regression and tree-based models with 20+ engineered features, achieving 92% R<sup>2</sup> accuracy and cutting premium estimation time by 60%. Deployed model as REST APIs on AWS, supporting real-time predictions for 1,000+ test cases.

### • Villa Real Estate Web Application

Developed a responsive property platform with React.js (frontend) and Flask/MySQL (backend). Optimized property search and map-based listing performance, improving page load time by 40% and increasing user engagement metrics by 55% in testing.

### • DeepFake Text Detection

Implemented adversarial text detection using BERT and RoBERTa, boosting detection accuracy from 72% to 86% and improving robustness against adversarial attacks by 25%. Integrated the model into a secure pipeline for automated moderation.

### • Movie Recommendation System

Built a collaborative filtering-based recommendation engine using Python and scikit-learn, handling 100k+ user–movie interactions. Achieved 89% precision in personalized recommendations and reduced response latency by 35% through model optimization.