

Paavana Sai Reddy Bandi

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EDUCATION

University of Texas at Dallas, Richardson, TX, United States

December 2024

Master of Science, Computer Science

GPA 3.636

- Relevant Coursework: Machine Learning (Linear Algebra), Information Security, Database Management Systems, Design and analysis of Computational algorithms, Computer Architecture, Computer Graphics (C++), Bigdata Analytics (PySpark).

Visvesvaraya Technological University, Belagavi, Karnataka, India

July 2022

Bachelor of Engineering, Computer Science

GPA 3.5

- Relevant Coursework: Data Structures and Algorithms (C), Unix System Programming, Operating Systems, ARM Processor, OOPS with java, Cloud Computing, Web Frameworks and Technologies, Cyber Security Forensics and Law, Mobile Application Development (JAVA), Software Testing, Robotics, Web of Things

TECHNICAL SKILLS

Program Languages: Java, Python, PySpark, C, C++, JavaScript, PHP..

Web Development: HTML5, CSS3, React, Node.JS, Flask, Bootstrap, jQuery, Django.

Database Management: MySQL, SQL programming, MongoDB, Redshift, Amazon RDS.

Tools & Technologies: Git, Bitbucket, CI/CD, IPv4, IPv6, Jenkins, Rest APIs, Unix/Linux, Junit, Selenium, Jira, Gitlab, Visual Studio.

Cloud and DevOps: AWS, Docker, Kubernetes.

Software Development Concepts: Microservices Architecture, Agile (Software Development lifecycle).

Machine Learning and AI: TensorFlow, MLFlow, AirFlow, PyTorch, Scikit-learn, GenAI, LLMs.

WORK EXPERIENCE

Brillio Technologies, Bengaluru, Karnataka, India

October 2022 – December 2022

Software Engineer

- Engineered and tested over 10 **microservices using Java Spring Boot** as part of Verizon's digital transformation project.
- Optimized database interactions using **PostgreSQL**, ensuring data integrity and query efficiency.
- Facilitated **CI/CD pipelines using Jenkins and GitLab CI**, automating testing and deployment processes for 5+ dev environments.
- Collaborated in **Agile** teams of 20+ developers using project management tools like **Git and JIRA**, ensuring on-time delivery for multiple concurrent projects.

Cognizant Technology Solutions, Bengaluru, Karnataka, India

October 2021 – September 2022

Software Engineer

- Collaborated with senior engineers to develop **scalable software solutions** for global clients in chemicals and automotive industries.
- Enhanced application performance by performing basic **code reviews** and optimizing simple bottlenecks, improving response times by 10% using tools like **SQL** and **VisualVM**.
- Supported cloud migration efforts by assisting in deploying applications on **AWS**, gaining exposure to cloud-native architectures and **infrastructure-as-code** practices.
- Supported the implementation of **microservices architectures** and **RESTful APIs**, ensuring smooth system integrations.
- Assisted in automating business processes using **RPA tools** and contributed to the setup of **CI/CD pipelines**.
- Executed 100+ test cases using **JUnit**, **Selenium**, and **Postman**, improving system reliability.
- Contributed to **Agile delivery** processes by participating in sprint planning, daily stand-ups, and retrospectives, ensuring task completion and delivering small features on schedule.

ACADEMIC PROJECTS

3D Gaussian Splatting for Real Time Radiance Field Rendering, UT Dallas

January 2024 – May 2024

- Developed a machine learning-based rendering system using **Gaussian model** to generate photorealistic images from 3D data using **OpenGL**.
- Accomplished a Structural Similarity Index (SSIM) improvement of up to 20% over initial iterations and leveraged Google Colab's GPU capabilities, reducing local computation time by 20%.

Airline Passenger Satisfaction, UT Dallas

September 2023 – December 2023

- Led a comprehensive **Machine Learning** project in a team of four, aiming to enhance airline passenger satisfaction.
- Implemented **logistic regression, KNN, SVM, and decision trees** algorithms from scratch, without relying on external libraries.
- Achieved a 20% improvement in prediction accuracy, significantly boosting the model's effectiveness.

Multi-Class Disease Prediction Using Blood Sample Data, UT Dallas

January 2023 – May 2023

- Created a machine learning system for multi-class disease prediction, utilizing blood markers as key features.
- Achieved **97.5% training accuracy and 97.66% testing accuracy** using GBM, demonstrating the model's effectiveness.
- Validated the model's performance with SVM, attaining 85.96% training accuracy and 86.20% testing accuracy using scikit-learn libraries.

CERTIFICATIONS

Oracle: Oracle Cloud Infrastructure 2024 Generative AI Certified Professional