Pavani Ayanambakam

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EDUCATION

State University of New York at Buffalo   Buffalo, New York
Masters in Computer Science and Engineering, Major in Artificial Intelligence   *Aug. 2023 – Dec 2024*

Sri Venkateswara University   Tirupati, India
Bachelors in Computer Science and Engineering   *Aug. 2017 – May 2021*

EXPERIENCE

Software Engineer   July 2021 – Aug 2023
Tata Consultancy Services(TCS)   *Bengaluru, India*
- Proficient in utilizing Angular, Python, GoLang to design dynamic interfaces and develop robust server-side logic, improving user interaction time by 20%. Created more than 16+ RESTful APIs to support various functionalities.
- Designed and implemented a dashboard to summarize, track and monitor 5G core network infrastructure's performance and stability. Achieved a 30% increase in test coverage and a 15% reduction in bug discovery time.
- Developed more than 35 UI components (charts, graphs, tables, maps) to visualize network data, 15+ interactive elements for data filtering, drilling down, and custom views.

Intern (MEAN stack developer)   March. 2021 – June 2021
nVipani Technology solutions private Limited   *Bengaluru, India*
- Launched an e-commerce ,B2B application called "Shop Connect" which is a AR/VR based integrated shopping platform. Built a scalable backend using NodeJS to handle logistics for over 5,000 products from 238 B2B suppliers
- Gained expertise in React, Bootstrap by building aesthetic interfaces that boosted user engagement and sales by 24% compared to traditional B2B platforms. Created and integrated RESTful APIs for product data retrieval, order processing, and secure video chat functionalities, handling over 10,000 daily API requests with a 99% uptime

PROJECTS

Virtual Classroom application / *Python, Flask, React, PostgreSQL, Docker*   June 2023
- Developed a virtual classroom platform enabling over 500 educators to conduct online classes, with key features such as video conferencing, screen sharing, and recorded session access.
- Used React for the frontend, Python with Flask for the backend and MongoDB for data storage. Students can join classes, interact with teachers, and access recorded sessions.

RealTime AI driven Chat Platform / *React, ML models, NLP*   May 2023
- Engaged in a Machine Learning Hackathon as a team of 4. Integrated NLP models for smart features like sentiment analysis, message summarization, and AI-driven reply suggestions, improving response efficiency by 30%
- Built a responsive chat interface with real-time messaging, using React, which supported over 1,000 concurrent users, improving team communication by 30%.
- Reduced processing time by 25% using optimized algorithms, increasing overall efficiency of the hackathon project.

Malware Threat Detection using ML models / *Analytics, AI Platform, R Language*   May 2021
- Trained a model on a Malware Threat dataset with 83 features and evaluated performance using a confusion matrix.
- Utilized machine learning models including Gradient Boosting, Sequential Neural Network, and LightGBM to detect malware patterns, achieving 86% accuracy

Class Attendance through Face detection and recognition / *Python Scripting, Application Integration* May 2023
- Implemented a class attendance system using face detection and recognition with Deep Learning Models (Naive Bayes Convolutional Neural Networks), achieving 95% accuracy in recognizing faces through OpenCV for both images and video streams

TECHNICAL SKILLS

Languages: HTML, CSS3, JavaScript, Python, Java, Go Lang, Bash, GitHub, Data Structures and algorithms, C, C++.

Frameworks: Angular, ReactJS, Typescript , SQL, Agile SDLC, Microservices, J2EE, Jenkins, AWS Cloud Services, GCP, Docker, Postman, Figma, Spring, Django, CSS, Spring Data JPA, REST, Maven, JSON, MongoDB, PostgreSQL Oracle, MySQL, GIT, CUDA, LLM, Junit, Automated Testing, Blackbox Testing, Functional Testing, Performance Testing, Regression Testing, and Unit Testing.

Technologies: AWS Solution Architect course, Solution Engineering , Data Science, DBMS, Computer Networks, Network Security, NLP, Reinforcement Learning, Cyber Security, Operating Systems, LLM.

Libraries: pandas, numPy, matplotlib, scikit-learn, tensorflow, keras, opencv