Pavani Ayanambakam

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EDUCATION

State University of NewYork at Buffalo   Buffalo, New York
Masters Degree in Computer Science, Major in Artificial Intelligence (GPA:3.87/4)   *Aug. 2023 – Dec 2024*
Bachelors Degree in Computer Science(GPA:8.81/10)

SUMMARY

Full Stack Developer with 3 years experience in React, Angular,Spark, Node.js, and Python. Skilled in building dynamic web applications, software design and integrating APIs with databases. Experienced in Distributed systems and in cloud deployment (AWS, GCP), CI/CD, cybersecurity and Agile methodologies. Proficient with Visual Studio, Git, and Test-Driven Development (TDD), asynchronous programming. Strong problem-solving, debugging, and unit, integration testing skills.

EXPERIENCE

Software Engineer   July 2021 – Aug 2023
Tata Consultancy Services(TCS)   *Bengaluru, India*
- Proficient in **Angular**, **Spring Boot**, **Flask**, **MySQL**, and **DynamoDB** to design dynamic interfaces and build robust server-side logic, improving user interaction time by 20%. Streamlined deployment on **Azure** using **CI/CD pipelines**, integrating automated testing frameworks like **Selenium** and **JUnit**, while effectively debugging pipeline failures.
- Worked with Verizon, to design a dashboard for **5G** network infrastructure's performance, boosting test coverage by 30% and cutting bug discovery time by 15% through observability tools for metrics, logging like Datadog
- Designed and maintained large-scale, high-availability backend services, utilizing databases like DynamoDB and messaging technologies such as Kafka, Kinesis, ensuring low-latency performance and system reliability.

MEAN Stack Developer   March. 2019 – June 2021
nVipani Technology solutions private Limited   *Bengaluru, India*
- Developed "**Shop Connect**", an **AR/VR-based e-commerce B2B platform**, building a scalable backend with **Node.js**, **Express.js**, and **MongoDB** to manage 5,000+ products from 238 suppliers. Utilized **Docker**, **Jenkins**, and **AWS Services** (**S3**, **EC2**) for containerization, deployment, adhering to agile methodologies with Git version control
- Designed aesthetic UI's with **React.js**, **Bootstrap**, and **CSS3**, increasing user engagement and sales by 24%.
- Created and integrated RESTful APIs for handling over 10,000 daily API requests with a 99% uptime.

PROJECTS

Intellignet Q&A using RAG / *Python, HuggingFace Embeddings, Cohere LLM, RAG models*   June 2024
- Developed and message summarization an intelligent Q&A system using RAG to process and index over 1 million text chunks from diverse file types, ensuring efficient and accurate query responses. Achieved 30% improvement in response accuracy and handled 500+ queries daily, delivering results in under 3 seconds on average.
- Used FAISS for vector storage and Hugging Face embeddings, giving precise, context-driven answers via Cohere's LLM

Virtual Classroom application / *Python, Flask, React, PostgreSQL, Docker*   Sept 2023
- Developed a virtual classroom platform enabling over 500 educators to conduct online classes, with key features suchas video conferencing, screen sharing, and recorded session access. Used React for the frontend, Python with Flask for the backend and **PostgreSQL** for data storage. Students can join classes, access recorded sessions.
- I applied concepts like kernel operations, OS/storage systems, job scheduling, resource management, and file systems to design and implement efficient system-level functionalities in the project.

RealTime AI driven Chat Platform / *React, ML models, NLP*   May 2023
- Participated in a Machine Learning Hackathon, integrating NLP models for sentiment analysis, and AI-driven replies and message summarization, boosting response efficiency by 30%, and created a real-time React chat interface supporting 1,000+ users while doing performance optimiazation by 25%.

Class Attendance through Face detection and recognition / *AI, Deep Learning, Image Processing*   May 2023
- Implemented a class attendance system using face detection and recognition with Deep Learning Models (Naive Bayes CNN), achieving 95% accuracy in recognizing faces through **OpenCV** for both images and video streams.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript/Typescript, Java, C++, C, OOP, Data Structures & algorithms, Golang
Frontend Technologies: Angular, HTML5, CSS, Bootstrap, React, WordPress, Prototyping, PHP, Apache Spark
Backend Technologies: Node.js, Express framework, Spring Boot, system design, API JSON, Java, Cypress
Database and Cloud platform: SQL, MySQL, PostgreSQL, DynamoDB, Oracle, NoSQL, AWS(SQS,SNS), GCP, Azure
IDE & Testing Tools: Visual Studio Code, Eclipse, Karma, Selenium, Junit test, troubleshooting, Postman.
Machine Learning and DL: PyTorch, Scikit-learn, Numpy, Pandas, Seaborn, Matplotlib, Plotly, Flask, Tableau, Keras
DevOps Tools: Docker and Kubernetes, Jenkins, GitHub/GitLab, Software Development Lifecycle