PARTH GODSE

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Professional Summary

Results-driven Software Engineer with hands-on experience building full-stack applications, scalable backends, and cloud-native systems. Proficient in Python, FastAPI, React, TypeScript, SQL, and AWS, with a track record of improving performance, reducing latency, and delivering reliable, production-ready solutions. Strong collaborator who thrives in fast-paced teams and adapts quickly to new technologies.

Education

Master of Science in Computer Science | Indiana University Bloomington| GPA: 3.8/4 **Aug 2023 - May 2025**
- Courses: Applied Algorithms, Machine Learning, Data Mining, Elements of AI, Computer Vision.

Bachelor of Technology in Computer Science | MIT WPU | GPA: 3.8/4 **Aug 2019 - May 2023**

Technical Skills

Languages : Python, SQL, JavaScript, TypeScript, C, C++, HTML, CSS, Tailwind
Databases : MySQL, PostgreSQL, Supabase, MongoDB, Firebase, BigQuery, Faiss Vector Database
Frameworks/Tools : Nextjs, Nodejs, FastAPI, Flask, React, Kubernetes, CI/CD, Docker, Git, GitHub, ShadCN
Cloud : AWS(EC2, S3, SageMaker, EMR, Glue, Athena), GCP, PySpark, Hadoop
AI/ML : PyTorch, Tensorflow, Transformers, HuggingFace, LangChain, RAG, OpenCV, NLP, LLMs
Analytics : Power BI, Tableau, QuickSight, A/B Testing, Feature Engineering

Work Experience

Software Engineer **January 2025 - Present**
CyberInfrastructure for Network Science Center | *Python, OpenCV, NumPy* **Indiana, USA**
- Automated segmentation pipeline – Built an OpenCV + NumPy system to segment biomedical images, reducing manual effort from hours to minutes. Scaled processing to 400k+ images using CUDA + multithreading, cutting runtime by 40% while preserving image quality via adaptive resizing and aspect-ratio alignment.
- Anatomical visualization system – Developed a Python-based engine to auto-generate SVG schematics of organ blood flow from structured CSV datasets. Implemented ID normalization, FTU to FTU vascular inference, and custom Matplotlib rendering utilities with adaptive layouts, producing high-resolution, reproducible biomedical diagrams.

Software Engineer - AI/ML **July 2024 - November 2024**
Hyphenova | *Python, GenAI, NLP, LLMs, Pytorch, Tensorflow, Docker, Prometheus* **California, USA**
- Improved transformer model accuracy 15% and throughput 10% by containerizing models with Docker + Flask APIs, accelerating customer sentiment insights across 5+ business units.
- Launched a Kubernetes-based recommendation engine with Prometheus/Grafana monitoring, achieving a 20% boost in personalization efficiency and 25% higher monitoring accuracy.

Software Engineer **March 2022 - June 2022**
CanspiritAI | *Linux, Python, TensorFlow, OpenCV, Kubernetes, Kubeedge, Docker* **Pune, India**
- Delivered 90% detection accuracy by implementing an end-to-end DETR object detection pipeline with a ResNet backbone.
- Configured KubeEdge clusters on WSL with Kubernetes for deploying lightweight AI models to Edge devices, enabling 81% model accuracy with minimal latency.
- Optimized Docker image builds and deployment scripts, reducing inference response time by 15% across platforms.

Projects

Graph-Based Workflow Management System | *Next.js, TypeScript, Prisma, PostgreSQL, Tailwind, Pexels API, SVG*
- Engineered a full-stack task management system with Prisma ORM + PostgreSQL, supporting metadata storage, dependency links, and media integration.
- Implemented a dependency engine using Kahn's algorithm and Critical Path Method (CPM) scheduling to compute ES/EF/Slack, prevent cycles, and identify critical tasks.
- Built an interactive SVG dependency graph with auto-layering, arrowheads, and critical path highlighting, enabling real-time project timeline visualization.

LiveSync Kanban Dashboard | *Python, Node.js, React, Supabase, Tailwind, CI/CD, TypeScript*
- Built a real-time Kanban board with drag-and-drop tasks and Supabase sync, boosting workflow clarity by 40% and cutting task update latency 30%.
- Automated task reminders with scheduled triggers, increasing completion rates by 25%, and integrated Vercel CI/CD pipelines for zero-touch deployments.
- Designed a modern, responsive UI with Tailwind, improving usability and boosting user engagement by 50% in testing.

Amazon Reviews Big Data Analytics | *Python, AWS (Glue, EMR, Athena), PySpark, EC2, S3, SageMaker, QuickSight, XGBoost*
- Designed a PySpark ETL pipeline on EC2 Spot + Glue, improving processing speed 40% and cutting compute costs 30%.
- Automated model training in SageMaker Autopilot (93% accuracy with XGBoost) and created QuickSight dashboards used by 20+ stakeholders.
- Secured infrastructure with IAM/VPC policies, reducing S3 storage costs by 20% monthly.

Automated Daily News Briefing Agent | *Python, Langchain, GitHub, Gemini, GCP, CI/CD, RAG, Prompt Engineering*
- Built a LangChain-powered news agent that ingests headlines, summarizes with Gemini, and validates facts via DuckDuckGo search, producing True/False/Unverified verdicts.
- Implemented the workflow as a LangGraph StateGraph with callbacks to run automatic relevancy and faithfulness checks.
- Automated GitHub Actions CI/CD with cron scheduling, secrets management, and email delivery to stakeholders, ensuring daily 100% uptime distribution.