Pranav Goyanka

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Education

Boston University — Boston, MA
MS in Computer Science | GPA: 3.71/4.00 — *Sep 2023 – Jan 2025*
Teaching Assistant: Graduate Distributed Systems (in Go)

Thapar Institute of Engineering and Technology — Patiala, India
BE in Electronics and Communication Engineering | CGPA: 8.84/10.00 — *Jul 2017 – Jun 2021*

Technical Skills

Programming Languages: C++, Python, Java, Go, TypeScript, JavaScript, SQL, HTML/CSS
Frameworks: Docker, Kubernetes, Node.js, ReactJS, Oracle SQL / PostgreSQL, gRPC, FastAPI, PyTorch, TensorFlow
Tools & Libraries: AWS, RESTful API, Spring, Apache Flink, Kafka, Redis, Git, Linux
Other Skills: Event Driven Architecture, System Design, Object Oriented Programming, Agile Development, Scrum

Experience

Software Development Engineer — Oct 2022 – Jul 2023
Mobile Premier League — *Bangalore, India*
- Achieved a 40% reduction in infrastructure costs and utilization by implementing a library for metrics collection and auto-scaling using OpenTelemetry, enabling graceful node shutdowns and adoption multiple cross-functional teams.
- Boosted user engagement and retention by 70% by expanding matchmaking systems with cross-country support, enabling seamless interactions across international user bases.
- Accelerated development and enhanced stability by designing backend systems and libraries with extensive end-to-end testing for Node.js-based microservice games, streamlining processes and eliminating boilerplate code across 7 games.
- Halved testing time for the Node.js team by using Kubernetes to run required non-Node.js services locally, enabling quick tests without full deployment.
- Simplified payment and game data storage and access across the organization, by developing centralized Java services and a Kafka-powered data pipeline.
- Played a key role in the successful Go-To-Market execution by contributing to the Distributed Systems team and leading backend development for a new application.

Software Development Engineer — Jan 2021 - Oct 2022
Amadeus Software Labs — *Bangalore, India*
- Reduced chatbot development effort by over 50% by creating 'Chatbot as a Service,' a modular Java framework using Spring Boot, which integrated multiple NLP APIs and streamlined database interactions to accelerate bootstrapping.
- Pitched the solution to cross-functional teams, driving adoption by 3 teams and enabling efficient chatbot development.
- Reduced incidents by 40% by enhancing the stability, recovery mechanisms and regression tests of the C++ backend.
- Increased data recovery efficiency by 80% by developing a Splunk dashboard to monitor incidents in real time.
- Fixed Oracle SQL database cron job scripts, enabling the automated periodic purging of 10+ TB of unwanted SQL data, significantly reducing database storage usage.

Software Developer — Jun 2020 - Aug 2020
Google Summer of Code — *Remote*
- Generated and deployed serverless Machine Learning models, CI/CD pipelines, and APIs for fake news detection.
- Reduced model size of TensorFlow machine learning models by 85% and hosted them on AWS Lambda.
- Developed APIs and a Chrome extension to detect fake news, clickbait and misinformation in images on the internet.

Projects

Retrieval-Augmented Generation for Internal Documentation | *RAG, LLMs*
- Developed a RAG pipeline optimizing LLM responses using proprietary docs, with a Flask-based UI for uploads and interaction, leveraging ChromaDB for vector representation.

Trending Movie Browser | *ReactJS, TailwindCSS, Vite*
- Built a movie browsing web app with debouncing support that features trending movies based on most searched titles.

Automated Trading System | *LSTM, TensorFlow, scikit-learn*
- Developed LSTM models to predict daily temperatures for four cities using multi-source weather data, leveraging predictions to execute automated trades on the Kalshi exchange and prediction market.

Operator Placement on the Edge in Apache Flink | *Flink, Edge Compute, Streaming*
- Enhanced Apache Flink with heterogeneous device support and dynamic task offloading to edge nodes, enabling efficient edge computing for geo-distributed queries while minimizing latency.

Fault Tolerant Key-Value Store | *Distributed Systems, Raft Consensus Algorithm, Go*
- Built a scalable key-value storage service by implementing the Raft distributed consensus algorithm in Go.