

Pranav Goyanka

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EXPERIENCE

Teaching Assistant and Course Designer

Jan 2024 – Present

Boston University

Boston, MA

- Implemented the OmniPaxos consensus protocol and wrote extensive 30+ unit tests in Go.
- Designed assignments, grading infrastructure, and coursework for writing formal specifications using TLA+.
- Assisted Prof. John Liagouris in conducting weekly lab sessions and office hours for the courses CS350 and CS651.

Software Development Engineer

Oct 2022 – Jul 2023

Mobile Premier League

Bangalore, India

- Engineered backend systems and centralized libraries for Node.js microservice based server-authoritative games.
- Optimised infrastructure utilization via centralized libraries resulting in a 40% reduction in infrastructure costs.
- Expanded matchmaking systems with cross country support, boosting user engagement and retention by 70%.
- Led backend development for a new mobile app, driving successful go-to-market strategy and on-time product launch.

Software Development Engineer

Jan 2021 – Oct 2022

Amadeus Software Labs

Bangalore, India

- Created 'Chatbot as a Service', a modular Java framework to reduce chatbot development effort by more than 50%.
- Developed and released standalone Java libraries for Google Dialogflow, IBM Watson's NLP APIs, and MongoDB.
- Rectified malfunctioning SQL database purge scripts, reducing disk space usage over 90%.
- Resolved daily incidents promptly in the C++ based Back Office Tool, resulting in a 40% incident reduction.

Software Developer

Jun 2020 – Aug 2020

Google Summer of Code

Remote

- Contributed to the project 'Social Street Smart' for combatting fake information on the internet.
- Generated and deployed serverless Machine Learning models, CI/CD pipelines and APIs for fake news detection.
- Migrated TensorFlow machine learning models to lightweight TFLite models and deployed them to AWS Lambda.
- Developed a JavaScript API to detect misinformation in images using the Google Cloud APIs.

PROJECTS

Retrieval-Augmented Generation for Internal Documentation

Jul 2024 – Aug 2024

- Developed a RAG pipeline that optimizes LLM responses based on proprietary documentation.
- Implemented a user-friendly web UI using Flask for uploading documentation and interacting with the model.
- Evaluated the correctness and accuracy of responses with RAG enabled and disabled across 5 different LLMs.

Automated Trading System

Mar 2024 – Apr 2024

- Performed automated trades on Kalshi using LSTM models to predict daily temperatures for four cities.
- Collected, cleaned and processed weather data from four sources via APIs for model training.

Fault Tolerant Key-Value Store

Oct 2023 – Nov 2023

- Implemented the Raft distributed consensus algorithm using Go, and built a scalable key-value storage service using it.
- Ensured robustness against various network and node failures by using an extensive suite of unit tests.

EDUCATION

Boston University

Dec 2024

MS in Computer Science | GPA: 3.78/4.00

Boston, MA

Courses: Principles of Machine Learning, Distributed Systems, Tools for Data Science

Thapar University

Jun 2021

BE in Electronics and Communication Engineering | CGPA: 3.73/4.00

Patiala, India

Courses: Data Structures and Algorithms, Operating Systems

TECHNICAL SKILLS

- **Programming Languages:** Go, TypeScript, JavaScript, C++, Python, Java, SQL, HTML/CSS
- **Frameworks:** PyTorch, TensorFlow, Docker, Node.js, Socket.IO, WebSocket, OpenTelemetry, gRPC, Flask
- **Tools and Libraries:** Apache Flink, Kafka, Redis, scikit-learn, AWS, RESTful API, Git, Linux, AWS S3, SQS, DynamoDB
- **Other Skills:** System Design, Agile Development, Scrum, Code Reviewing, Testing, Team Collaboration, Object Oriented Programming, JSON, Pub/Sub, Event Driven Architecture, Service-Oriented Architecture