

# Pranav Goyanka

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## EDUCATION

### Boston University

MS in Computer Science | GPA: 3.71/4.00

Teaching Assistant: Graduate Distributed Systems (in Go)

Boston, MA

Sep 2023 – Dec 2024

### Thapar Institute of Engineering and Technology

BE in Electronics and Communication Engineering | CGPA: 8.84/10.00

Patiala, India

Jul 2017 – Jun 2021

## 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.
- Led backend development for an upcoming application, ensuring proper production setup for various AWS services.

### 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++ based backend – the Back Office tool, to comply with the IATA NDC standards.
- Increased 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 purging of 10+ TB of unwanted SQL data, significantly reducing database storage usage.

### Student Developer

Jun 2020 - Aug 2020

Google Summer of Code

Remote

- Selected for GSoC as a part of the 18% applicants globally and contributed to the open-source project 'Social Street Smart', aimed at combatting misinformation and fake news.
- 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.

## TECHNICAL SKILLS

**Programming Languages:** C++, Python, Java, Go, TypeScript, JavaScript, SQL, HTML/CSS

**Frameworks:** Docker, Kubernetes, Node.js, PostgreSQL, gRPC, Flask, 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

## PROJECTS

### Retrieval-Augmented Generation for Internal Documentation | RAG, LLMs

Aug 2024

- Developed a RAG pipeline that optimises LLM responses based on proprietary documentation.
- Implemented a user-friendly web UI using Flask for uploading documentation and interacting with the model.

### Automated Trading System | LSTM, TensorFlow, scikit-learn

Apr 2024

- 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

Apr 2024

- 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

Nov 2023

- Built a scalable key-value storage service by implementing the Raft distributed consensus algorithm in Go.