**Pranav Goyanka**

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**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, Graduate Computer Networks

**Graduate Teaching Assistant** for CS651 and CS350 (in Go)

**Thapar University Jun 2021**

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

Courses: Data Structures and Algorithms, Operating Systems

**SKILLS**

* **Programming Languages:** C++, C, Python, Java, Go, TypeScript, JavaScript, SQL, HTML/CSS
* **Frameworks:** PyTorch, TensorFlow, Docker, Node.js, Socket.IO, WebSocket, OpenTelemetry, gRPC, Flask
* **Tools and Libraries:** Docker, Apache Flink, Kafka, Redis, scikit-learn, AWS, RESTful API, Git, Linux, DynamoDB
* **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 costsand 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.
* Enabled faster development and **improved stability** by engineering backend systems and libraries with extensive end-to-end testing for **Node.js microservice** based server-authoritative games, eliminating boilerplate code across 7 games.

**Software Development Engineer Jan 2021 – Oct 2022**

Amadeus Software Labs Bangalore, India

* Reduced chatbot development effort by over **50%**, by **accelerating bootstrapping time**, by creating ‘Chatbot as a Service’, a modular Java framework using Spring Boot for **NLP APIs** and database APIsused by over 5 teams.
* 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.

[**Software Developer**](https://summerofcode.withgoogle.com/archive/2020/projects/5793865656696832) **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**.

**PROJECTS**

[**Retrieval-Augmented Generation for Internal Documentation**](https://github.com/pranavgoyanka/RAG-on-Markdown-Docs) **Jul 2024 – Aug 2024**

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

[**Automated Trading System**](https://github.com/pranavgoyanka/LSTM-Automated-Trading-System) **Mar 2024 – Apr 2024**

* Predicted daily temperatures using **LSTM models** and performed automated trading with over **80% accuracy**.
* Collected, cleaned, and processed weather data with over **12,000 data points** from4 sources via **APIs** for model training.

**Apache Flink on the Edge** **Jan 2024 – May 2024**

* Added heterogeneous device support to Apache Flink for enabling **Edge compute** on **geo-distributed queries**.
* Built a system for dynamically offloading intensive tasks to edge nodes to **minimize overall latency**.
* Developed a **Docker environment** to **simulate network conditions** for running experiments and benchmarking.

**Fault Tolerant Key-Value Store Oct 2023 – Nov 2023**

* Built a **scalable** key-value storage **service** by implementing the **Raft** distributed consensus algorithm in **Go**.
* Ensured **robustness** against network and node failures by using a **comprehensive suite** of over **40 unit-tests**.