

Jayant Duneja

720-339-6970 | Boulder, Colorado | jayant.duneja@colorado.edu | <https://www.linkedin.com/in/jayantduneja/>

EDUCATION

University of Colorado Boulder, Boulder, Colorado

Aug 2023 - May 2025

M.S. in Computer Science

GPA: 4.0

Coursework: OOP, Software Design, Cloud Computing, NLP, Deep Learning and Neural Networks

International Institute of Information Technology, Hyderabad, India

Aug 2018 - May 2022

B.Tech(Honors) in Electronics and Communication

GPA: 8.86

SKILLS

Programming, Frameworks & API Development: Python, Java, SQL, Spring Boot, Flask, FastAPI, LangChain

API Development: RESTful APIs, gRPC, Microservices Architecture

Databases & Storage: Google Datastore, Google BigQuery, PostgreSQL, Redis, MinIO, Pinecone

Cloud & DevOps Tools: Kubernetes, Docker, GCP (Google Cloud Platform), GKE (Google Kubernetes Engine), CI/CD Pipelines

Project Management & Collaboration: Jira, Confluence, SharePoint, Agile/Scrum Methodologies

PROFESSIONAL EXPERIENCE

Five9 Inc. (California, USA)

Engineering Intern

May 2024 - Present

- Architected and implemented a **paginated endpoint** in **Java** with **SpringBoot**, cutting response times by **80%** (from **5 to 1 second**). Utilized **RxJava** for enhanced concurrency and designed a custom index to optimize query performance under high-load conditions.
- Developed a backend solution to empower customers with the ability to define, test, and deploy custom **LLM** prompts for transcript evaluation, seamlessly integrating results with both the **data warehouse (BigQuery)** and the **primary database (Google Datastore)** to deliver real-time, data-driven insights in Looker to **50+ dashboards**.
- Automated the validation process by developing and integrating a **GitLab Runner** into the **CI/CD** pipeline, eliminating manual endpoint triggers and reducing deployment time.

Walmart Global Tech (Bangalore, India)

Software Engineer II

Jul 2022 - Jul 2023

- Designed and implemented an **event-driven microservice architecture**, enhancing **data pipeline automation** and increasing operational efficiency by **10%** by automating **75** workflows.
- Engineered and deployed three critical microservices using **Java** and **SpringBoot** on **Google Cloud Platform**, streamlining data processing and significantly reducing manual intervention.
- Achieved a **95%** code coverage in unit and integration testing with **JUnit**, ensuring robustness and reliability of the new system, and integrated secure API management using **Hashicorp Vault** to enhance security protocols.

Walmart Global Tech (Bangalore, India)

Software Engineering Intern

May 2021 - Jul 2021

- Spearheaded the development of a **CLI tool** utilizing **Python** and the **Splunk SDK** to automate and expedite error identification in Splunk logs, reducing debugging time for developers by **6-9 hours** per week during critical on-call scenarios.

PROJECT EXPERIENCE

Daily News Summarizer

Jan 2024 - Mar 2024

- Developed a personalized daily news summarizer using **FastAPI**, **Langchain**, **GPT-4**, and Google News. Implemented a **Retrieval-Augmented Generation (RAG)** pipeline for content generation and utilized **Pinecone** for vector database storage.
- Enabled users to input their preferences, providing them with top summarized articles and the top 10 key points from all articles, tailored to their interests.

Text-To-SQL LLM

Feb 2024 - Apr 2024

- Fine-tuned Llama-2** and **Llama-3** models for a text-to-SQL task using **LoRA** and **QLoRA**, significantly improving model accuracy from **31.8%** to **60.6%**.
- Implemented advanced post-processing techniques to enhance SQL query generation accuracy, surpassing the baseline performance of **GPT-3.5** and **GPT-4** models.

PAST RESEARCH EXPERIENCE

- Gahoi, A., et al. (2022). Gui at MixMT 2022 : English-Hinglish: An MT approach for translation of code mixed data. Proceedings of the Seventh Conference on Machine Translation (WMT), pages 1126–1130. arXiv preprint arXiv:2210.12215