

Manas Mhasakar

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EDUCATION

Georgia Institute of Technology

Master of Science in Computer Science

August 2024 - Ongoing

Atlanta, Georgia

BITS Pilani, India

Bachelor of Engineering in Computer Science

July 2019 - August 2023

Goa, India

WORK EXPERIENCE

Microsoft Research - Software & Research Fellow

July 2023 - August 2024

- Led development efforts on **LLM use cases** and built advanced **RAG systems** using LlamaIndex, GPT-4.
- Spearheaded backend development in **Django**, leveraging **LLMs** & static analysis tools for speech analysis.
- Coded an **orchestrator** engine for synchronized **backend** and **LLM** calls, improving system efficiency by **60%**.
- Devised **algorithms** to enhance consistency of LLM outputs, boosting response accuracy & reliability by **40%**.

SuperPe - Software Development Intern

January 2023 - June 2023

- Architected and implemented backend architecture for **scalable payments**, handling **50k+** daily transactions.
- Optimized account verification & transaction services, eliminating **30k+** monthly manual validation tasks.
- Integrated prefilling of business docs, reducing onboarding time by **80%** and boosting user growth by **30%**.
- Migrated vital microservices to **FastAPI** and introduced **DynamoDB** cache, achieving **70%** faster data lookup.

Dezerv - Backend Development Intern

September 2022 - December 2022

- Developed **REST APIs** for interacting with **MongoDB** in **Golang** for a digital wealth management platform.
- Coded logic for fraudulent transactions, removing need for manual verification and reducing frauds by **50%**.
- Built an end-to-end pipeline for user onboarding, ascertaining credit score & identifying **15%** more **high-risk users**, contributing to a **12%** reduction in default rates.

ServiceNow - Software Development Intern

May 2022 - July 2022

- Integrated **MS Teams** and **NetSuite OpenAir** with **ServiceNow portal**, enabling seamless communication and collaboration among over **100 project stakeholders** across **5 teams**.
- Developed **OpenAir plugins** to automate project task updates, reducing communication delays by **30%**, while improving task completion rates by **20%**.

Coulomb.AI - Backend Development Intern

November 2021 - April 2022

- Implemented **APIs** in **Flask** for data retrieval & analysis, resulting in a **40%** increase in processing speed.
- Executed automation scripts improving data storage efficiency by **50%** & reducing processing time by **20%**.

PROJECTS & OPEN SOURCE

Kumu Connect

- Leading engineering efforts at the Moamoa Lab, Georgia Tech to design a teacher support platform using LLMs.

Comuniqa: Exploring Large Language Models for Improving Speaking Skills

- Designed and conducted user studies with over 60+ students on Comuniqa, a novel LLM-based system for enhancing speech and presented it at the *7th ACM SIGCAS/SIGCHI COMPASS 2024*. [arxiv](#)

Auto-Evaluation of Programs

- Automated the evaluation process for introductory programming labs at BITS Pilani, evaluating assessments for over **900** students by leveraging symbolic execution and bounded model checking with KLEE and CBMC.
- By enhancing the accuracy and efficiency of evaluations, reduced the assessment evaluation time for Teaching Assistants from hours to just minutes.

SKILLS

- **Languages:** Python, C++, Golang, JavaScript, C, Java, Rust, Coq, SQL, Bash
- **Frameworks:** LlamaIndex, Azure OpenAI, Django, Flask, NodeJS, Bootstrap, ReactJS, FastAPI, React Native
- **Tools:** MongoDB, Azure, Redis, Postman, Docker, GIT, PostgreSQL, MySQL, SQLite, AWS, GCP