Tawsif Kamal

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EDUCATION

Georgia Institute of Technology   Atlanta, GA
Bachelor of Science in Computer Science   *Dec. 2025 (Expected)*
- **Concentrations**: Artificial Intelligence and Information Internetworks
- **Coursework**: Machine Learning, Natural Language Processing, Data Structures & Algorithms, Computer Hardware

EXPERIENCE

IBM   May 2024 – Aug 2024
Machine Learning Developer Intern (GenAI)   *Toronto, ON*
- Engineered a GraphRAG LLM Agent projected to save project managers **40 hours per month** by automating RAID Log updates with information retrieved from Slack, email and meeting note summaries
- Fine tuned local models such as Llama-8b-instruct, Granite-7b-lab and more through LoRA + InstructLAB achieving a **22% improvement** from base models on answering project management questions
- Integrated LLM Ops for deploying models using Docker & Azure AKS Kubernetes, GO-CD for CI/CD and LangServe

IBM   Jan 2024 – Apr 2024
Data Science Intern (GenAI)   *Toronto, ON*
- Architected a multi-agent LLM chatbot using LangGraph for over **100 Airbus ground engineers**, designed to answer questions regarding engineering documents saving more than **200 hours** of manual work
- Designed a code generation LLM agent that converted **10,000+** lines of legacy SQL Stored Procedures to Java Spring Boot saving over **500+** developer hours using Python, LangChain, Vector Databases, RAG and Google VertexAI
- Developed a Graph-RAG algorithm using Neo4j that performs **30%** better than traditional RAG vector search

Bits of Good   Aug 2023 – Dec 2023
Full-stack Developer (Team Lead)   *Atlanta, GA*
- Led a team to create a web application for around **1000** Southface employees, boosting construction worker efficiency by **50%** through rapid search, filtering, and compilation of building standards
- Managed a team of 5 developers, collaborated with 2 designers, and a project manager and held weekly client meetings
- Engineered the app using Next.js, AWS RDS SQL, REST API, MongoDB, and Microsoft Azure Cloud Blob for distributed storage

Logicom   May 2023 - Aug 2023
Software Developer   *Atlanta, GA*
- Implemented a call service management software currently serving around **5,000** internal and external call center clients
- Assisted in achieving a **50%** code reduction by revamping legacy PHP code using Vue.js, NodeJS, CSS, and AWS working in an agile with 4 developers

NCR   May 2022 - Aug 2022
Software Engineer Intern   *Atlanta, GA*
- Developed a frontend settings page for NCR's new Point-of-Sale software for restaurants used by over **1,000** clients using React.js, Redux, and TypeScript + wrote Unit tests using Jest
- Integrated Apple Pay, Google Pay, PayPal in the backend using FreedomPay APIs through Nest.js, GraphQL/REST API
- Built a full-stack Next.js + Python application for the NCR Hackathon that scans in-store grocery items and offers recipe recommendations and placed top 20% of submissions

PROJECTS

TinyGen - LLM Coding Agent | *LangChain, Python, Kubernetes, Docker, FastAPI, NoSQL DB*
- Created a GenAI coding agent using LangChain that generates code pull requests with **75%** accuracy on repos of any size
- Designed a Streamlit UI and deployed to production using Google Kubernetes Engine, Docker and Supabase DB

Reinforcement Learning on Robot Simulations | *Python, Pytorch, Numpy, Pandas, Matplotlib*
- Created YouTube tutorials (**7k+ views**) implementing Deep Q-Learning, Monte Carlo and TD-Learning algorithms

Computer Vision - Forecasting Popular Shoe Prices | *Python, Pytorch, Matplotlib, CUDA*
- Developed a custom image classification model with **82%** accuracy for shoe price prediction, leveraging 5000 shoe images

TECHNICAL SKILLS

Programming Languages: Python, Java, C#, C, C++, SQL, JavaScript, TypeScript, HTML/CSS
Technologies: Pytorch, Numpy, Seaborn, Matplotlib, Docker, Kubernetes, Pandas, Git, AWS, GCP, Azure
Frameworks/Tools: LangChain, LangGraph, React.js, Vue.js, Angular.js, MongoDB, DynamoDB, RestAPI, GraphQL