

Taleef Tamsal

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EDUCATION

Purdue University

Master of Science in Computer Science

Indiana, USA

Aug. 2024 – May 2026

Lahore University of Management Sciences

Bachelor of Science in Computer Science

Lahore, Pakistan

Aug. 2020 – May 2024

EXPERIENCE

Software Development Intern

Medical Informatics Engineering (MIE)

May 2025 – August 2025

Fort Wayne, Indiana

- Developed a production-ready, containerized Retrieval-Augmented Semantic Search (RASS) engine, establishing a long-term, intelligent knowledge base for internal AI agents
- Utilized Docker, Node.js microservices, and an OpenSearch vector database, and built a modern React and MUI frontend with secure user authentication and document access
- Implemented a quantitative evaluation framework using TruLens and RAGAS to systematically diagnose performance bottlenecks and validate architectural enhancements, ensuring optimal performance
- Engineered a custom Ruby on Rails plugin to seamlessly integrate the RASS engine's semantic search capabilities directly within MIE's native Redmine interface, enhancing information retrieval and workflow efficiency

Digital Channel and Partnership Intern

PMCL-Jazz

July. 2023 – Aug. 2023

Islamabad, Pakistan

- Managed product lifecycle for Jazz's push notification features, understanding the product ecosystem by leveraging A/B testing, performing content creation, and using data-driven insights to enhance user engagement by 20% and retention by 15%
- Collaborated with fast-paced cross-functional teams, including UI and UX designers, product, data, and DevOps, to iterate on the Tamasha app usability enhancements and digital content, boosting user experience ratings by 30%

PROJECTS

SemEval 2025 Task 10 | *Python, Hugging Face, Scikit-learn, PyTorch*

- Devised comprehensive NLP solutions for all three core subtasks: architecting multi-label classification models for Entity Framing and Narrative Classification, and a text-generation model for Narrative Extraction
- Optimized model performance by implementing advanced statistical analysis, data transformation, cross-validation, and hyperparameter tuning

Campus Connect | *React, Node.js, Express, Firebase, Vite, Git, GitHub Actions*

- Developed a full-stack web application to centralize on-campus TA, research, and student worker opportunities, bridging the gap between professors and students
- Architected the application with a React/Vite frontend and a Node.js/Express backend, and implemented a complete CI/CD pipeline with GitHub Actions for automated build, testing, and deployment to Firebase

Purdue Attendance Tracker | *Firebase, React, Material-UI, Node.js, Sass*

- Built an end-to-end QR code-based system for managing student attendance, automating recordkeeping, ensuring CI/CD, code reliability, automation, testing, and generating detailed reports using the NoSQL Firebase Database
- Designed a dynamic and responsive interface with React and Material-UI, practicing version control, creating unit tests, and incorporating features such as QR code generation and email distribution

TECHNICAL SKILLS

Languages: Python, C, C++, C#, Java, JavaScript, TypeScript, SQL, Golang, R

Frameworks/Libraries: Pandas, NumPy, ReactJS, Node.js, TensorFlow, PyTorch, Matplotlib, Scikit-learn, Spark

Developer Tools: Git, Docker, AWS, Azure, Postman, Django, Linux, GCP, Jira, Jest, Cypress, GitHub Actions

Soft Skills: Problem-Solving, Critical Thinking, Collaboration, Agile, Teamwork, Communication

Certifications: DeepLearning.AI Data Engineering, Google Data Analytics, freeCodeCamp Responsive Web Design, Meta Front-End Development, IBM Cybersecurity Analyst