

Mohtashim Butt

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EDUCATION

Lahore University of Management Sciences – BS Computer Sciences

Relevant Courses: Computer Vision, Machine Learning, Language Processing with Generative AI, Deep Learning, Software Engineering, Databases, Algorithms

Lahore, Pakistan
Aug. 2020 – May 2024

PUBLICATIONS

Geographically Generalisable Urban Green Space Segmentation for Developing Countries

Aug. 2025

Mohtashim Butt, Nawaal Siddique, Fatima Naweel, Zubair Khalid

Conference: IEEE International Geoscience and Remote Sensing Symposium, Brisbane, Australia | [Poster](#)

PROFESSIONAL EXPERIENCE

Guest ML Researcher

Kaiserslautern, Germany (Remote)

Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI)

May. 2025 – present

- Built a Python app (and deployed using Gunicorn/Nginx) for an explainable GAT-based network graph using D3JS to predict gut-microbe to disease links across 120 diseases for potential drug-discovery. | [Tool Link](#)
- Fine-tuned 100+ LLMs from Hugging Face for protein/DNA/RNA sequence classification, regression, and interaction.
- Deployed 32 embedding methods, 24 ML classifiers with 3 data types via containerized Python app (FLASK) | [Tool](#)
- Built an LLM-based research team leveraging AI agents to suggest a novel hypothesis and research path | [Tool Link](#)

Software Engineer 1

Dubai, UAE (remote)

Careem (Uber Inc.)

August. 2024 – May 2025

- Developed a bot in Go for Slack-to-JIRA ticket creation, automating 80% of the Mobile team's GitHub PRs workflows.
- Stabilized 2 Go microservices by increasing test coverage to 90%, reducing SLO/SLA latencies, debugging the Docker Container, monitoring Kubernetes Pod, and onboarding services to Dynatrace.
- Migrated a legacy internal tool to a Java+TypeScript+Vite micro-frontend, integrating it into Careem's central portal adopted by the Food team.
- Built a monitoring dashboard for 3 microservices using SQL, Python, and internal tools, later adopted by the central engineering department for monitoring.

Machine Learning Intern

Lahore, Pakistan

Centre for Water Informatics and Technology

May. 2023 – June. 2023

- Integrated four ESP-32 cameras to develop a low-cost unit for capturing a multi-directional (360°) view.
- Automated image capture, upload, and retrieval via a self-hosted site using PHP, Python, Arduino, and HTML.
- Fine-tuned a tiny-Yolov5 model for forest fire detection in the retrieved images to trigger an alarm. | [Final Report](#)

PROJECTS (2023-2024)

Multi-Modal Conversational Story Generator

OpenAI API, GPT-3.5, DALL-E, BERT, Deployment

- Fine-tuned BERT/GPT-3.5 on [STORIUM](#) dataset as a storyline guidance model following MCQA approach.
- Leveraged GPT-3.5 API for paragraph generation and DALL-E stable diffusion model for image generation. | [Poster](#)
- Deployed the project's frontend (JS) on Vercel and backend (python) on Pythonanywhere | [Deployed Project Link](#)

Learning Management System in MERN

MongoDB, Javascript, REST APIs

- Implemented frontend (in React JS) and backend (in Express) of a role-based access LMS.
- Created db schema, set up MongoDB cluster, and applied CRUD operations via self-engineered API calls. | [Code](#)

TEACHING EXPERIENCE

- Teaching Assistant for **CS-473: Deep Learning** under Dr. Murtaza Taj for (Spring 2025)
- Teaching Assistant for **CS-360: Software Engineering** under Dr. Maryam Ghafoor (Spring 2024)

LANGUAGES & FRAMEWORKS

Python, Go, TypeScript, Django, C/C++, HTML, CSS, PHP, Haskell, Arduino, NLTK, scikit-learn, Matplotlib, Cuda, Git, Docker, Kaggle, Hugging Face, Roboflow, REST APIs, Proteus, AI Automation, LLM fine-tuning, Generative AI.