

Dawood Wasif

571-235-1206 | dawoodwasif@vt.edu | [linkedin.com/in/dwasif](https://www.linkedin.com/in/dwasif) | github.com/dawoodwasif | [Google Scholar](https://scholar.google.com/citations?user=...)

EXPERIENCE

Summer Instructor

iD Tech Camps, Amazon HQ (DMV)

May 2025 – Present

Arlington, Virginia, USA

- Teach **Python, AI/ML, Java, and Scratch** courses to 100+ students aged 7–17 across weekly rotating cohorts
- Create and deliver 25+ adaptive lesson plans per week integrating coding, visualization, AI tools, and game design

Research Assistant

Trustworthy Cyberspace Lab (tClab), Virginia Tech

Aug. 2024 – Present

Arlington, VA, USA

- Applying **RL** reward shaping in UAV/UGV teaming for adaptive defense under human-in-the-loop constraints
- Built a **VLM+LLM** autonomous driving system with ENN, enabling uncertainty-aware decisions in real-time.
- Led research on investigating **privacy-fairness trade-offs** in **Federated Learning (FL)** for various domains.

Graduate Teaching Assistant

Virginia Tech, Department of Computer Science

Aug. 2024 – May 2025

Falls Church, VA, USA

- Provided academic support and guest lectures for **500+ students** and CS 5024 (Ethics & Professionalism in CS) across CS 2506 (Computer Organization), improving comprehension of technical and ethical concepts.

Machine Learning Engineer

DCube Tech.

July 2023 – Aug. 2024

Islamabad, Pakistan

- Engineered **spatiotemporal deep learning models** for **human action recognition and pose estimation** on warehouse CCTV footage, reducing false positives by **23%**, contributing to an estimated **\$300K** annual savings
- Developed and deployed a **fine-tuned LLM**-powered chatbot for a private banking app, enabling 24/7 support
- Designed and implemented **multi-agent LLM architectures** to automate the supply chain and customer service operation pipelines for **enterprise e-commerce platforms**, increasing workflow automation efficiency by **35%**

Data Scientist

Omdena

July 2022 – July. 2023

New York, NY, USA

- Collaborated as Task Leader to develop an AI-powered solution addressing the issue of pipe-borne water availability in Lagos, Nigeria, improving water supply prediction accuracy by **48%** for more than **14 million residents**.
- Led a team of **50+ engineers** as a Local Chapter Lead of Islamabad to develop a **flood extent mapping system** using **computer vision and satellite imagery**, reducing disaster response times by **20%** for local NGOs

EDUCATION

Virginia Polytechnic Institute and State University

PhD in Computer Science, CGPA: 4.00/4.00

Falls Church, VA, USA

Aug. 2024 – May 2027

National University of Science and Technology

Bachelor of Science in Computer Science, CGPA: 3.81/4.00

Islamabad, Pakistan

Aug. 2019 – May 2023

SELECTED ACHIEVEMENTS AND PUBLICATIONS

- [A.1] **Best Green Tech Hack** - MakeUC Hackathon 2024. EcoLens (2024).
- [A.2] **First Place in Privacy Track** - Hack49 Global. SafeSearch AI (2024).
- [A.3] **DAAD Research Fellowship** - Chair of Data Science in Earth Observation, TUM (2022).
- [A.4] **Outperforming Intern of the Cohort Award** - Neurog. First Cohort (2022).
- [A.5] **Third Place Overall & Crowd Favorite Award** - DevRev Coding with AI Hackathon. AutoFlow (2022).
- [P.1] Wasif et al. **Privacy–Fairness–Accuracy Trade-offs in Federated Learning**. In *AAAI/ACM AIES 2025*.
- [P.1] Wasif et al. **Towards a Benchmark EO Dataset for Uncertainty Quantification**. In *IEEE IGARSS 2023*.
- [P.3] Wasif et al. **Extraction of Phenological Metrics Using Multispectral Drone Imagery**. In *IEEE SITIS 2022*.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, Rust, R, SQL, TypeScript/JavaScript (Node.js, Express.js), HTML/CSS
Software/Tools: Docker, Linux, Git, Jenkins, REST APIs, FastAPI, Flask, React, CI/CD, Jupyter, Visual Studio
Cloud/Big Data: AWS, GCP, Azure, Kubernetes, Anaconda, Hadoop, Snowflake, Databricks, S3, Hive, Kafka
ML/DL: PyTorch, TensorFlow, Keras, Scikit-learn, NumPy, Pandas, PySpark, Hugging Face, Transformers, LangChain
LLM/AI Tools: LLMops (MLflow), FAISS, LlamaIndex, VectorStores, Gradio, Guidance, GPT APIs, ElasticSearch
Visualization/Analytics: Tableau, PowerBI, Microsoft Office, A/B Testing, DataDog, Looker, Zoho Analytics