Aquib Iqbal

Portfolio | LinkdIn | Github

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EDUCATION

University of Massachusetts Amherst — Amherst, MA
Master of Science in Computer Science; GPA: 3.80 — *Sep. 2023 – May. 2025*

Aligarh Muslim University — Uttar Pradesh, India
B.Tech in Computer Engineering; GPA: 3.67 — *Aug. 2019 – July. 2023*

TECHNICAL SKILLS

Languages: C++, C, Java, Python, Dart
Developer Tools: VS Code, Google Colab, Firebase, GitHub, Linux, LaTeX
Technologies/Frameworks: Tensorflow, PyTorch, Keras, OpenCV, Pandas, Flutter, ReactJs

EXPERIENCE

Binghamton University (SUNY) — New York, USA
Summer Research Intern — *Jun 2023 - Aug 2023*
- Extensively reviewed primary literature focusing on diverse **backdoor attack** methodologies targeting deep learning algorithms.
- Successfully executed trojan attacks with a **89%** success rate, underscoring the significance of safeguarding deep learning algorithms in **Unsupervised Domain Adaptation**.

Okayama University — Okayama, Japan
Research Intern — *Aug. 2022 - Dec. 2022*
- Authored and published two impactful research papers during a research internship:
- Used Swin Transformer (SwinT) to classify maize leaf diseases (blight, common rust, grey leaf spot) with a remarkable accuracy of 95.9%, surpassing existing disease identification methods. ***Publication*** ↗
- Applied Vision Transformer(**ViT**) to classify 13 distinct bearing defects, alongside normal conditions, using experimental data CWRU. Achieved a high classification accuracy of **98.8%** by converting vibration signals into 2D timefrequency images through STFT. ***Publication*** ↗

Aura Estates Ltd. | ***Playstore*** ↗ — Dunstable, United Kingdom
Software Developer Intern — *Jun 2021 - Dec 2021*
- Developed a mobile application from scratch to help the company grow its digital presence on **iOS and Android platforms.** Also managed 3 developers.
- Utilized **Flutter** framework for front-end development and used **Google Firebase** as a Database to store the property and user data, authenticate users, and manage admin page credentials.
- Programmed and deployed an admin page with **ReactJs** on Firebase to upload and manage property data.

PROJECTS

- MoodMeter.ai ↗
  - Developed MoodMeter.AI, an advanced tool for remote work communication, employing real-time emotion detection through facial expression and voice analysis to enhance understanding in online meetings.
  - Utilized a technologically advanced stack, including Python, Agora SDK, and Language Learning Models, to create a comprehensive solution with features like facial expression analysis, voice sentiment analysis, and an interactive dashboard for seamless performance.
- SSORT ↗
  - Spearheaded the capstone project "SSORT: Semantic-Segmentation-for-Off-Road-Traversibility," focusing on the analysis of off-road terrains and showcasing expertise in deploying Semantic Segmentation models such as UNet, DeepLabv3, and FCN.
  - Evaluated SAM and SegFormer architectures with off-road datasets from Yamaha CMU, achieving a notable 10% accuracy improvement using SegFormer, as evidenced by metrics like IoU, F1score, and Pixel Accuracy.
- Python Package ↗ | *'pip install general-distribution'*
  - Open source python library for probability distribution classes such as Gaussian and Binomial distribution.
  - Used to **calculate** Mean, Standard Deviation, Probability density function, plot Histogram.

AWARDS & CERTIFICATION

- Specialization: **Deep learning**, **Tensorflow in Practice**. and **Python**
- Hackathons (Rank): **HackUMass_XI, HackSNU (1st), HackAMU 2.0 (1st)** and **HackAMU 1.0 (2nd)**