Ahsan Bilal

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EDUCATION

University of Oklahoma   Oklahoma, USA
Masters and Ph.D. in Computer Science   *Sep. 2024 – Present*
- **CGPA** – 4.0/4.0
- **Advisor**: Dr. Dean Hougen | Research includes machine learning, deep learning, LLMs & Explainable AI

National University of Sciences & Technology (NUST)   Islamabad, Pakistan
Bachelors of Engineering in Electrical Engineering   *Aug. 2020 – June 2024*
- **CGPA** – 3.66/4.0 | **Specialization GPA** – 4.0/4.0 | **Merit Scholarship** 2020
- **Person identification using gait with fused graph and 3D-convolutional architectures** | Presentation |

PUBLICATIONS | GOOGLE SCHOLAR

Abstract – LLM for Explainable AI
IEEE DSAA'24 | Accepted
A. Bilal, B. Lin

Task Aware Distributed Source Coding for Correlated Audio Signals Using Perceptual Loss
AAAI'25 Workshop | Accepted
S. Bhattacharya, MA. Mohsin, A. Bilal, J.M. Cioffi

Retrieval Augmented Generation with Multi-Modal LLM Framework for Wireless Environments
ICC 2025 Workshop | Accepted
MA. Mohsin, A. Bilal, S. Bhattacharya, J.M. Cioffi

Hierarchical Deep Reinforcement Learning for Spectrum Resource Optimization in Integrated Terrestrial and Non-Terrestrial Networks
AAAI'25 Workshop | Accepted
MA. Mohsin, H. Rizwan, M.Umer, S. Bhattacharya, A. Bilal, J.M. Cioffi

Meta-Thinking in LLMs via Multi-Agent Reinforcement Learning: A Survey
IEEE TAI | Submitted
A. Bilal, MA. Mohsin, M Umer, MAK Bangash, MA Jamshed

On Shadow Removal With Boosted Attention in a Vision Transformer
IEEE Access | Submitted
A. Bilal, A. Salman, S.S. Naveed, M.U. Safder, K. Khurshid, M.U. Ilyas

Person Identification using Gait with Fused Graph and 3D-Convolutional Architectures
Cell–Press Heliyon | Submitted
A. Bilal, A. Subhan, H. Ali, A. Salman

INDUSTRY EXPERIENCE

Machine Learning Engineer   Islamabad, PK
Cowlar Design Studio (Y Combinator 21) – Based in USA   *Feb 2024 – August 2024*
- Developed an Action Recognition system for Smart Carts with 95% accuracy, built dual inference deployment for RockChips Android NPU and NVIDIA clusters, and automated fiber alignment with 96% success, improving precision to 5 micrometers and scaling production 40x.

UI Developer   Dubai, UAE
SJCurve – Remote   *March 2023 – August 2024*
- Created responsive web applications using WordPress and React.js, customized themes, integrated frontend with backend, and collaborated with teams to implement modern UI trends.

UX/UI Designer   Wah Cantt, Pakistan
Meraki-IT – Remote   *Nov 2022 – Mar 2023*
- Led UI/UX design for multiple projects, analyzing problem statements, designing intuitive interfaces, and developing wireframes and prototypes for the technology sector.

TALKS AND PRESENTATIONS

- Delivered a presentation titled **"AI in Healthcare"** at Norman Regional Hospital under the supervision of Dr. Lubna Mirza

Honors and Awards

* Best Student Presentation **Runner-up** Award at **IEEE DSAA'24** Student Forum.
* Recipient of the **College of Engineering Graduate Fellowship 2025**
* Awarded the **Student Travel Grant** for **IEEE DSAA 2024**.
* My Final Year Project received the **1st Best Adjudged Industrial Project Award** at the **NUST Open House 2024**.
* Selected as an Undergraduate Research Intern for the First Cohort of UGRIP by MBZUAI.
* Winner of **Prime Minister Laptop Scheme**.

Certifications

* Google UX Professional Certificate.
* Deep Learning Specialization Certificate.
* The Advanced Communication Skills Course.

Skills

Programming & Deep Learning: PyTorch, Tensorflow (Keras), OpenCV, Docker, Mlflow,EC2 Instance
Languages: Python, C/C++, Embedded C, Javascript (React.js), HTML/CSS, Next.js
Tools: MATLAB, VS Code, Git, AutoCad, Figma, PyCharm, Raspberry Pi OS, NginX
Design: Figma, AdobeXD, Adobe Illustrator, Adobe Photoshop, Sketch, WordPress Theme Design