

Ahsan Bilal

+1 (405) 371-8541 | Ahsan.Bilal-1@ou.edu | [git/AhsanBilal7](https://github.com/AhsanBilal7) | [ln/AhsanBilal7](https://www.linkedin.com/in/AhsanBilal7) | portfolio/Ahsan-Bilal

EDUCATION

University of Oklahoma

MS/ Ph.D in Computer Science

Oklahoma, USA

Sep. 2024 – Present

• CGPA – 3.8/4.0

• Advisor: [Dr. Dean Hougen](#) | Research includes machine learning, deep learning, LLMs & Explainable AI

National University of Sciences & Technology (NUST - SEECS)

Bachelors of Engineering in Electrical Engineering

Islamabad, Pakistan

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](#)

Neural Gaussian Radio Fields for Channel Estimation

Neurips'25 | Submitted

M. Umer, MA. Mohsin, [A. Bilal](#), J.M. Cioffi

ItDPDM: Information-Theoretic Discrete Poisson Diffusion Model

Neurips'25 | Submitted

S. Bhattacharya, AR. Gorle, [A. Bilal](#), C. Ding, AK. Singh Yadav, T. Weissman

Continual Learning for Wireless Channel Prediction

ICML'25 | Accepted

MA. Mohsin, M.Umer, [A. Bilal](#), MA Jamshed, J.M. Cioffi

Task Aware Distributed Source Coding for Correlated Audio Signals Using Perceptual Loss

AAAI'25 | Accepted

S. Bhattacharya, MA. Mohsin, [A. Bilal](#), J.M. Cioffi

Retrieval Augmented Generation with Multi-Modal LLM Framework for Wireless Environments

ICC 2025 | 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 | Accepted

MA. Mohsin, H. Rizwan, M.Umer, S. Bhattacharya, [A. Bilal](#), J.M. Cioffi

Abstract – LLM for Explainable AI

IEEE DSAA'24 | Accepted

[A. Bilal](#), B. Lin

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

Springer Machine Learning | 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

International Journal of Multimedia Information Retrieval | Submitted

[A. Bilal](#), A. Subhan, H. Ali, A. Salman

INDUSTRY EXPERIENCE

Machine Learning Engineer

[Cowlar Design Studio](#) (Y Combinator 21) – Based in USA

Islamabad, PK

Feb 2024 – August 2024

- Developed an Action Recognition system for Smart Carts with 95% accuracy, built dual inference deployment for Android NPU and NVIDIA clusters. Automated fiber cable alignment using computer vision and machine learning with 96% success, improving precision to 5 micrometers and scaling production 40x.

UI Developer

SJCurve – Remote

Dubai, UAE

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.

- 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 **Gallogly 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