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EXPERIENCE

LEAD RESEARCH ASSISTANT PAKISTAN | GENERATIVE INTELLIGENT SYSTEMS (GENISYS) LAB, NAMAL UNIVERSITY | AUGUST 2024 – PRESENT

- Conducting data analysis and literature reviews, and implementing ML and DL techniques to support ongoing projects, culminating in two papers submitted to peer-reviewed journals.

CO-FOUNDER PAKISTAN | DEVELOPERS BAY | AUG 2022 – PRESENT

- Founded and led a 6-member student startup, delivering web and AI solutions to international clients, developing 10+ responsive platforms and AI tools, and achieving 70% client retention.

LAB ASSISTANT PAKISTAN | NAMAL, MATHEMATICS DEPARTMENT | NOV 2024 – PRESENT

- Assisted 35+ students in Machine Learning lab sessions, improving project quality and reducing coding errors by 40% through guidance, feedback, and weekly debugging sessions.

TEACHER ASSISTANT PAKISTAN | ACADEMIC MENTORSHIP PROGRAM | APRIL 2024 – JULY 2024

- Mentored 40+ students, graded assignments and quizzes, and led 15+ lab sessions on networking concepts and configurations, leading to a 35% improvement in average scores.

SOFTWARE ENGINEER INTERN NAMAL SOFTWARE DEVELOPMENT CELL | PAKISTAN | MARCH 2022 – APRIL 2023

- Worked with the university IT team to develop and maintain university management platforms and other software solutions for institutional use.

PUBLICATIONS

[J1] M. U. Safder, S. S. Naveed, K. Khurshid, A. Salman, and I. F. Nizami, "Optimizing Imbalanced Learning with Genetic Algorithm," SUBMITTED TO NEUROCOMPUTING, ELSEVIER, 2024.

[J2] M. Bilal Aslam, A. Rehman, A. Salman, S. S. Naveed, M. U. Safder, M. U. Ilyas, and K. Khurshid, "Handwritten Mathematical Expression Recognition using Multi-Scale Features and Attention-Based Model," UNDER MINOR REVIEW, SCIENTIFIC REPORTS, NATURE, 2024.

[J3] M. I. Abeeel, K. Khurshid, A. Salman, M. U. Safder, and S. S. Naveed, "SMCD: A Low-Cost Multichannel and Stereoscopic Experience for 2D Displays," SUBMITTED TO SIGNAL, IMAGE AND VIDEO PROCESSING, SPRINGER, 2025.

[J4] H. J. Bhatti, K. Khurshid, M. U. Safder, S. S. Naveed, I. Aslam, and A. Salman, "Dense U-Net: MR Image Reconstruction from Highly Under-sampled Data." SUBMITTED TO SCIENTIFIC REPORTS, NATURE 2025.

EDUCATION

BACHELOR OF SCIENCE IN COMPUTER SCIENCE (2025)

NAMAL UNIVERSITY
CGPA: 3.5 / 4.0

SKILLS

LANGUAGES

Python • JavaScript • TypeScript • C/C++ • SQL • HTML • CSS •

TECHNOLOGY

Git/GitHub • MySQL • Linux • Django • Pandas • Numpy • scikit-learn • Matplotlib • TensorFlow • Pytorch • AWS • MongoDB • Docker • Jenkins • REST APIs • MLflow • OpenCV • React • React Native • Firebase • Node.js • Figma

CERTIFICATIONS

Machine Learning Specialization

COURSERA

Issued: February 14, 2024

[View](#)

Mathematics for Machine Learning and Data Science Specialization

COURSERA

Issued: February 14, 2024

[View](#)

Marketing Analytics Foundation

COURSERA

Issued: September 24, 2023

[View](#)

EXTRACURRICULAR

PODCAST HOST

Initiated and hosted a podcast having cross-disciplinary discussions on contemporary issues, producing 10+ episodes and achieving 3,000+ views across YouTube and Facebook.

📺 YouTube:// Genz Gupshup

PROJECTS

MASS REPORTING SYSTEM | INTELLIGENT TRAFFIC VIOLATION DETECTION & REPORTING (FYP)

October 2024 - Present | Namal University

- Designing and developing a complete system and application for citizen-driven traffic violation reporting, including server setup, with a mobile-first approach and ML models for automatic detection and validation of violations, in collaboration with Teradata.

MAGUS: REAL-TIME MAGIC SPELL CLASSIFIER | AI-POWERED CLASSIFICATION OF MAGIC SPELLS FROM WAND MOVEMENTS

Dec 26 – Dec 28, 2024 | Developed at LUMS AI Nexus Hackathon

- Developed an AI-powered wand movement classification system with a self-created dataset of 25 spells, earning second position among 50+ teams at LUMS AI Nexus Hackathon.

URDU OCR | OPTICAL CHARACTER RECOGNITION FOR URDU

July 2024 | Namal University

- Generated a dataset of 700,000+ Urdu word images with varied character lengths, and implemented three models—Hybrid CNN+LSTM, VGG16, and a custom Deep CNN—achieving 90%+ accuracy in advanced Urdu character recognition.

LEARNEUP | AN E-LEARNING MARKETPLACE

July 2024 | Freelance

- Built an e-learning marketplace with React.js/Node.js, featuring real-time messaging, secure Stripe payments, and scalable PostgreSQL schema for service discovery and user authentication.

CYBER ATTACK DETECTION ON IOMT DEVICES | DEEP LEARNING APPROACHES

June 2024 | Namal University

- Developed advanced machine learning and deep learning models to detect cyberattacks on IoMT devices in healthcare, achieving 95%+ accuracy using the CIC IoMT dataset.

HEDY IN URDU | CONVERTING HEDY - A GRADUAL PROGRAMMING LANGUAGE TO URDU

Nov 2022 – May 2023 | Namal University

- Worked in a team of 4 dedicated to the adaptation of Hedy to Urdu in order to bridge the language barrier in the programming community under the guidance of my professor, Dr. Junaid Akhtar.

WHY PAKISTAN IS THE WAY IT IS? | A GAPMINDER DATA SCIENCE PROJECT

Feb 2022 | Namal University

- Analyzed 60 years of socio-economic data from the Gapminder dataset (1952–2012) with a focus on Pakistan, processing 6000+ data points using pandas and numpy for insights into key indicators to answer Why Pakistan is the way it is.

VOLUNTEERING

PRESIDENT | NAMAL COMPUTING SOCIETY | SEP 2024 – PRESENT

- Led 10+ technical workshops reaching 500+ students, organized 2 inter-university hackathons, and secured partnerships with 7 tech companies for fostering collaboration between academia and industry.

TEACHER AND EDUCATION WING HEAD | EDUCATION WING, NAMAL SOCIAL IMPACT SOCIETY | JAN 2022 – DEC 2023

- Founded and led the education wing, conducting classes for 200+ underprivileged students from surrounding villages and promoting digital literacy among them.

GENERAL SECRETARY | GENERAL SECRETARY IN NAMAL ENVIRONMENTAL SOCIETY | DEC 2022 – SEP 2023

- Led "Giving Life to Dry and Barren Mountains" initiative: planted 100+ trees, coordinated 150+ volunteers, and achieved a 75% survival rate. Raised awareness which led to a reduction in campus waste.

AWARDS

- Achieved second position in the prestigious AI Nexus Hackathon, hosted by LUMS, showcasing AI solutions.
- Achieved first position once and second position twice in NCS-organized inter-university competitive programming competitions.
- Secured a fully funded undergraduate scholarship at Namal University's Computer Science program based on academic excellence.