MUHAMMAD HASHIR BIN KHALID

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EDUCATION

	Degree	Passing Year	Institute	Passed
NYU	M.S. Computer Science (MSCS)	2022	New York University, New York	Completed
NED University of Engineering & Technology	Bachelor of Engineering (Electronics)	2017	NED University of Engineering and Technology, Karachi	Completed (Distinction)

WORK EXPERIENCE

- **Team Lead** at **National Center of Artificial Intelligence** (Aug 2022 - Present)
- **Senior IT Engineer (Part-time)** at **Lambda Theta** (Sep 2022 – Present)
- **Research Associate** at **National Center of Artificial Intelligence** (Oct 2020 - Aug 2021)
  Responsible for managing team and leading multiple projects of Neurocomputation Lab at National Center of Artificial Intelligence
- **Artificial Intelligence Engineer** at **NED University** (June 2018 - Sep 2020)
  Worked as Artificial Intelligence Engineer on an HEC funded project "Intelligent Ceiling Fans". This project is expected to transform Pakistan's fan market by introducing its novel control circuitry and implementation of A.I. techniques.
- **Research Assistant** at **NED University** (Dec 2017 – May 2018)
  Worked on Programming microcontrollers, circuit designing and product development. Was also involved in many projects development of Robochotu, a companion robot for home and office use.

AWARDS AND HONOURS

- **Fulbright Scholarship** for Masters
- New York University Graduate School of Arts and Science **Tuition Scholarship** for Masters
- **Gold Medal** from NED University for securing highest CGPA in the batch.
- **Gold Medal** from Institution of Engineers Pakistan for securing 1st position in undergrad studies.
- **HUAWEI Certified** ICT Associate in Artificial Intelligence

- **HUAWEI Certified** Artificial Intelligence Academy Instructor (Presidential Nominee)

MAJOR RESEARCH AND PROJECTS

Robothon Machine Learning Platform (Sep 2021 – Jan 2022)

Designed a meta machine learning platform that enables competition between ML bots to predict stress conditions in children with ADHD and ASD, and predict activity to play on their apple watch

Machine Common Sense (Jan 2022 – May 2022)

Worked on evaluation of different simulated scenes of Machine Common Sense Project of Defense Advanced Research Projects Agency (DARPA) and programmed different Artificial Intelligence and Computer Vision algorithms for MCS.

Intelligent Energy Efficient Ceiling Fans (June 2018 – Sep 2020)

Designed data collection and transmission nodes using ESP node MCU modules.
Designed circuit for controlling fan speed based on intelligent prediction from past data.
Build an intelligent system for predicting fan speed based on user's past inputs and cohort data.

Companion Robot For Home And Office Use (October 2016 – November 2017)

Developed a companion robot to enhance learning abilities of children with autism. Experiments were carried out at Center for Autism, Karachi. This project later received TDF grant from Higher Education Commission of Pakistan

PROFESSIONAL SKILLS

- Conducted "Artificial Intelligence for healthcare" session at Aga Khan University under a project by Fogarty International Center, National Institute of Health, USA
- Conducted training courses and sessions of robotics, artificial intelligence and machine learning at different universities and schools.
- Worked on Neural Style transfer, Natural Language Processing, Image Segmentation, Image Classification, Facial recognition, Language models, machine common sense and neural machine translation with attention.
- ML, Data Analysis, Computer vision and AI with Tensor flow, Keras, PyTorch and Matlab.
- Worked on Hive and Hadoop for big data project.
- Python, Java, C and C++ programming

PUBLICATIONS

- Khan, H.R.; Kazmi, M.; Ashraf, H.B.; Hashir Bin Khalid, M.; Hasan, A.; Qazi, S.A. An Isolated Power Factor Corrected Cuk Converter with Integrated Magnetics for Brushless DC Ceiling Fan Applications. Electronics 2021, 10, 1720. https://doi.org/10.3390/electronics10141720 (MDPI Journal Publication)
- Khalid, M. H. B., Kazmi, M., Khan, H. R., & Qazi, S. A. (2020). Teacher's Manual: Stem and DIY Robotics Curriculum (1st ed., Vol. 1). NED University of Engineering and Technology. (Book)