

# MUHAMMAD HASHIR BIN KHALID

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## EDUCATION

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

## WORK EXPERIENCE

- **Senior Machine Learning Engineer at Lambda Theta** (Sep 2022 – Present)  
Leading a team of Artificial Intelligence and Computer vision developers working on different local and international projects. Worked with ELM on road condition monitoring, crack detection and classification, and crack severity estimation using different deep learning and computer vision techniques.
- **Team Lead (Project Contract) at National Center of AI** (Aug 2022 - Present)  
Leading team of engineers and developers working on the development of battery management infrastructure for AIM Motors Private Limited. Areas of development include system development, data analytics, IoT and software development.
- **Research Associate at National Center of Artificial Intelligence** (Oct 2020 - Aug 2021)  
Responsible for technically leading a team of AI, Firmware and Software developers working on multiple projects of Neurocomputation Lab at National Center of Artificial Intelligence. Worked on development of lung trauma injury predictor using X-ray image with Aga Khan University hospital, Intelligent ceiling fan development and other projects.
- **Artificial Intelligence Engineer at National Center of AI** (Dec 2017 - 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.

## AWARDS AND HONOURS

- **Fulbright Scholarship** for Masters
- New York University Graduate School of Arts and Science's Full **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 1<sup>st</sup> 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 with Professor Rob Fergus at New York University on using different AI and Computer Vision techniques for evaluation of simulated scenes of "Machine Common Sense Project" of DARPA.



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

Worked on development of ML pipeline for IoT nodes installed with the Smart Fans circuit. Developed and tested different ML algorithms to predict preferred usage pattern. Designed MCU based circuit for controlling fan speed based on prediction of ML.



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

Development of companion robot to enhance learning abilities of children with autism. Worked on key point based analysis of child's behaviour to dynamically control robot's behaviour during therapy.

## PROFESSIONAL SKILLS

- Worked extensively on different projects related to Machine Learning, Data Analysis, Computer vision and AI using Tensor flow, Keras, PyTorch, Matlab and embedded C.
- 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.
- Worked on Hive and Hadoop for big data project.
- Python, Java, C and C++ programming
- Studied Deep Learning from Yann LeCun at New York University during Masters
- Completed Deep learning specialization of five course by DeepLearning.AI on Coursera
- Complete Machine Learning course by Stanford University on Coursera