

# Muhammad Umair Nasir

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## Education

- Feb 2021 | **M.Sc in Artificial Intelligence**, *University of the Witwatersrand, Johannesburg, South Africa.*  
March 2023  
Sep 2012 | **B.Sc in Electronics Engineering**, *Capital University of Science and Technology, Islamabad, Pakistan.*  
Jun 2016  
Sep 2009 | **F.Sc ( Grade 11 - 12 ) in Pre - engineering**, *Punjab College for Information and Technology, Multan, Pakistan.*  
Jun 2011  
Sep 2007 | **Matriculation ( 9 - 10 )**, *Multan Public Schoole, Multan, Pakistan.*  
Jun 2009

## Experience

- Dec 2021 – **Associate Machine Learning Engineer**, *Ominor AI, Johannesburg, South Africa.*  
Present  
◦ Apply Deep Reinforcement Learning for health tech client.  
◦ Creating efficient data pipelines.  
◦ Applying machine learning algorithm pipeline.  
May 2021 – **Data Scientist Intern**, *Aureks, Remote.*  
Nov 2021  
Dec 2018 – **Project Coordinator**, *Reliance Engineering Company, Multan, Pakistan.*  
Jan 2020  
Aug 2017 – **Telecom Integration Engineer**, *ZTE Corporation, Islamabad, Pakistan.*  
Oct 2018  
Aug 2016 – **Site Engineer**, *Reliance Engineering Company, Multan, Pakistan.*  
Aug 2017

## Skills

Programming Languages Python, SQL

Frameworks Tensorflow, OpenCV, Huggingface, Nltk, Scikit-learn, Xgboost, Fbprophet, Py-mongo, Neat-Python

Databases MongoDB, MySQL

Other Skills Data Visualization, LaTeX, Microsoft Excel

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## Research and Projects

**A Few Thousand Translations Go a Long Way! Leveraging Pre-trained Models for African News Translation, .**

Accepted at NAACL 2022

<https://arxiv.org/abs/2205.02022>

**Geographical Distance Is The New Hyperparameter: A Case Study Of Finding Optimal Pre-trained Language for English-isiZulu Machine Translation, .**

Accepted at NAACL 2022 Workshop MIA.

<https://arxiv.org/abs/2205.08621>

**Augmentative Topology Agents for Open-Ended Reinforcement Learning, *Python, Neat-Python, OpenAI gym, Box2D, Fiber.***

On-going M.Sc Thesis. Open-Ended Reinforcement Learning produces powerful agents. My work introduces agents with evolvable topologies into Open-Ended Learning through NEAT. We are modifying POET to examine the results.

**Intelligent Tuning for Particle Swarm Optimization Parameters through Tabu Search, .**

**Using Recurrence Plots as inputs to a Convolutional Neural Network for Exoplanet Search, *Python, Tensorflow, Pyts, Scikit-learn.***

**Sound Source Localizing Robot, *C++.***

Final Year Project For B.Sc.

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## Certifications

**Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization, *Feb 2021.***

[coursera.org](https://www.coursera.org)

**Neural Networks and Deep Learning, *Aug 2020.***

[coursera.org](https://www.coursera.org)

**Machine Learning with Python, *Aug 2020.***

[freeCodeCamp.org](https://www.freecodecamp.org)

**Python Programming, *Jun 2020.***

[udemy.com](https://www.udemy.com)