Shehryar Malik

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Objective

To understand and express intelligence mathematically – which is the ultimate objective of the field of artificial intelligence.

Education

Lahore University of Management Sciences, Lahore September 2019 – May 2021
Masters of Science • Computer Science

University of Engineering and Technology, Lahore August 2015 – May 2019
Bachelor of Science • Electrical Engineering

Aitchison College, Lahore August 2013 – May 2015
A Levels

Work Experience

Research Assistant July 2019 – Present
Center of Artificial Intelligence and Computational Science,
Information Technology University, Lahore.
Research Advisor: Dr. Ali Ahmed.

Research Intern July – September 2018
Centre for Language Engineering,
Khwarizmi Institute of Computer Science, Lahore.

Research Intern July – August 2018
Bio-Inspired Simulation and Modelling of Intelligent Life Laboratory,
Information Technology University, Lahore.

Research Intern May – August 2017
Internet of Things Laboratory,
Khwarizmi Institute of Computer Science, Lahore.

Projects

Urdu Handwriting Recognition using Deep Learning September 2018 – May 2019
Senior Project • Advisor: Dr. Ubaid Ullah Fayyaz

- Prepared a dataset containing 15,164 lines of Urdu handwritten text written by 490 different writers and containing 13,497 trigrams, 1,674 bigrams and 61 unigrams.
- Implemented and trained a simple CNN-LSTM-CTC architecture and a more complicated Bahdanau attention-based architecture in TensorFlow.
- Incorporated a trigram-based language model with Backoff Kneser-Ney smoothing.
- Achieved accuracies of up to 91% on the test set.
- For more details, visit https://shehryar-malik.github.io/web/theses/sp.

Skills

- Programming languages: Proficient in Python, MATLAB, LaTeX and Markdown. Have also used/studied C, Java, Verilog, Assembly, HTML, CSS, PHP and SQL occasionally.
- Natural Languages: Proficient in English and Urdu. Have a (very) rudimentary understanding of French and Arabic.
- Libraries: Extensively used NumPy, TensorFlow and Matplotlib.

Selected Courses

Artificial Intelligence and Machine Learning

- Deep Multi-Task and Meta Learning (Stanford CS 330) [on-going]
- Deep Reinforcement Learning (UC Berkeley CS294-112)
- Natural Language Processing with Deep Learning (Stanford CS224n)
- Convolutional Neural Networks for Visual Recognition (Stanford CS231n)
- Machine Learning (Stanford CS229)
- Introduction to Artificial Intelligence (MIT 6.034)

Mathematics

- Convex Optimization [on-going]
- Probability and Statistics

Signal Processing

- Analog and Digital Communications
- Digital Signal Processing
- Signals and Systems