SHAYAAN AHMED FAROOQI

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RELEVANT PROJECTS

Frame Level Classification of Speech

2019

- Assign Phoneme Labels to 25ms frames from Interviews of Wall Street Journal.
- <u>Link to my Repository</u> (Messy notebook includes lots of experimentation with hyperparameters and architecture)

Implemented Multilayer Perceptron

2019

- Used Numpy to implement an MLP.
- Implemented Batchnorm, Momentum and Backprop (ReLu and Sigmoid)

RELEVANT COURSES

Online:

- Machine Learning
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
- Programming Languages
- Neural Networks and Deep Learning

Offline (NED):

- Programming Languages (A+)
- Differential Equations (A+)
- Computational Physics (A)
- Probability & Statistics (A)

- Mathematical Physics (A)
- Statistical Mechanics (A-)
- Linear Algebra & Geometry (A-)

EDUCATION

NED University | Bachelor of Science in Applied Physics

2015-2019

- GPA: 3.62/4.0
- Awarded Oxbridge Scholarship for 8/8 semesters.
- Research Thesis "Synthesis and Characterization of Chromium Doped Bismuth Ferrite Nanoparticles"
- Awarded Laptop through Prime Minister Laptop Scheme

St Patrick's High School | A levels

2013-2014

- Awarded 3 Gold Medals for Highest grades in Physics, Chemistry, Maths
- Awarded 1 Gold Medal for outstanding A level performance.
- 4A* (Accelerated Maths, Physics, Chemistry, Economics), 2A (Further Mathematics, English)

Army Public School | O levels

2012-2013

- Awarded Certificates for Highest Grades in Physics, Chemistry, Maths, Additional Maths, Computers
- Awarded Regional Distinction in Chemistry by the Cambridge University.
- 7A* (Physics, Chemistry, Maths, Add Maths, Computers, Pakistan Studies, English), 2A (Islamiyat, Urdu)

CO-CURRICULARS

- National Mathematics Olympiad (NMO) by Abdus Salam School of Mathematical Sciences
- Passed Screening Tests in training camps to represent Pakistan at International Mathematics Olympiad (IMO)
- MOOCs from Coursera/edX (Programming Languages/Machine Learning/Deep Learning/Algorithms and Data Structures/Quantum Mechanics/Electrodynamics)

SKILLS

- Python, C, MATLAB, Github, Origin, Linux, Qt for Python (GUI)
- Very strong problem solving and math skills from physics education.
- Independent Learner: Programming, CS and AI knowledge is self taught.
- X-Ray Diffraction data analysis (XRD), Scanning Electron Microscope Image analysis (SEM)
- Fourier Transform Infrared Spectroscopy data analysis (FTIR)