# **Utkarsh Patel**

3<sup>rd</sup> Year Undergrad

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#### Interests

Deep Learning & Neural Networks · Algorithm Design · Graph Theory · Analog Circuit Design

#### EDUCATION

# Indian Institute of Technology Kharagpur

Kharagpur, India

Candidate for Bachelor and Master of Technology (Dual Degree)

Jul 2018 - Present

- o Major: Electronics & Electrical Communication Engineering CGPA 9.54 / 10.0
- Minor: Computer Science and Engineering CGPA 10.0 / 10.0

# Shah Faiz Public School

Ghazipur, India

Central Board of Secondary Education

- Higher Secondary: 94.8% May 2017
- $\circ\,$  Secondary: CGPA 10 / 10 May 2015

#### Course Projects

Cat or Not  $\Omega$  deeplearning.ai

Deep Learning application on Image Classification Problem

Jul 2020

- Built a deep neural network to classify images as a cat image or a non-cat image.
- Coded the Forward Propagation and the Backward Propagation from scratch to train the model.
- Used Batch Gradient Descent algorithm to get optimal weights and biases.
- Achieved 80% accuracy on test set after training the model.

## Relevant Coursework

• Computer Science:

Algorithms (+ lab), Programming and Data Structures (+ lab)

• Deep Learning:

Natural Language Processing\*, Regularization & Optimization Techniques\*, Neural Networks and Deep Learning

• Electronics and Communication Engineering:

Digital Electronics  $(+ \text{ lab})^*$ , Analog Communication  $(+ \text{ lab})^*$ , RF & Microwave  $(+ \text{ lab})^*$ , Digital Speech Processing, Analog Electronics (+ lab), Control Theory\*, Signals & Systems, Semiconductor Devices (+ lab)

• Mathematics:

Graph Theory, Probability and Stochastic Processes, Matrix Algebra

\* denotes ongoing courses

# SCHOLASTIC ACHIEVEMENTS

- 2020: Holding **Department rank 1** among 53 dual degree students at the end of 4<sup>th</sup> semester.
- 2017: Secured 2<sup>nd</sup> position in the district in All India Senior School Certificate Examination.

## TECHNICAL SKILLS

• Programming Languages:

Python, C/C++, Octave, MySQL

• Libraries / Frameworks:

TensorFlow, PyTorch, sklearn, Pandas, NumPy, MatplotLib, PIL, SciPy, C++ STL

• Softwares / Platforms / OS:

Google Cloud, MATLAB, LTSpice, Jupyter, Git, LATEX, Windows, Ubuntu

• Competitive Programming:

CodeForces