

# Utkarsh Patel

3<sup>rd</sup> Year Undergrad

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## INTERESTS

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

## EDUCATION

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- **Indian Institute of Technology Kharagpur** Kharagpur, India  
*Candidate for Bachelor and Master of Technology (Dual Degree)* *Jul 2018 - Present*
  - **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
  - **Secondary:** CGPA 10 / 10 — May 2015

## COURSE PROJECTS

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- **Cat or Not** 🐱 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

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- **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 (+ lab)\*, Analog Communication (+ lab)\*, RF & Microwave (+ lab)\*, Digital Speech Processing, Analog Electronics (+ lab), Control Theory\*, Signals & Systems, Semiconductor Devices (+ lab)
- **Mathematics:**  
Graph Theory, Probability and Stochastic Processes, Matrix Algebra

## SCHOLASTIC ACHIEVEMENTS

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- 2020: 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

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- **Programming Languages:**  
Python, C/C++, Octave, MySQL
- **Libraries / Frameworks:**  
TensorFlow, PyTorch, sklearn, Pandas, NumPy, Matplotlib, PIL, SciPy
- **Softwares / Platforms / OS:**  
Google Cloud, MATLAB, LTSpice, Jupyter, Git, L<sup>A</sup>T<sub>E</sub>X, Windows, Ubuntu