

Niraj Kumar

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EDUCATION

M.Tech in Computer Science
INDIAN STATISTICAL INSTITUTE

Kolkata, India | 2020-22

B.Tech in Computer Science and Engineering
GOVIND BALLABH PANT ENGINEERING COLLEGE

Pauri, Uttarakhand | 2015-19

WORK EXPERIENCE

COGNITREE | SOFTWARE DEVELOPMENT ENGINEER INTERN

Bangalore, India | Jul 2019 – Sep 2019

- Acquired practical knowledge about various design patterns and tools like Maven, Git, MongoDB etc.

PROJECTS

QUESTION ANSWERING MODEL(MAY 2021 - AUG 2021) 

TENSORFLOW, NLP, DEEP LEARNING

- A **BERT** based NLP model for answering the questions based on a corpus of documents.
- Model returns the starting and ending position of the answer in the relevant document.
- Information Retrieval techniques using **Lucene** are utilised to retrieve the relevant documents first.

SIGNATURE FORGERY DETECTOR(CURRENTLY WORKING ON) 

TENSORFLOW, DEEP LEARNING

- A deep neural network model to identify whether a given handwritten signature is authentic or not.
- Utilisation of **CNN** to retrieve features.

NEURAL NETWORK MODELS(APRIL 2021 - JUL 2021) 

PYTHON, NUMPY

- **Scratch implementation** of various neural network models and **model evaluation techniques** like **MLP**, **CNN**, **k-fold cross validation** etc.
- Models are trained and tested on various databases like **IRIS**, **MNIST** etc.

BEOWULF CLUSTER 

C, MPI, SHELL, CONCURRENCY

- Designing a master-slave cluster for heavy computations.
- Utilising old and cheap machines in the master-slave cluster.
- High Performance to cost ratio.

SKILLS

Languages: C, Python, Java, Bash, SQL

Technology: Machine Learning, Deep Learning, NLP

Tools and Libraries: Pandas, MATLAB, Git, Lucene, Tensorflow, ~~LaTeX~~

ACHIEVEMENTS AND CERTIFICATIONS

- 98.21 percentile in GATE 2021
- Problem Solving Certification by Hackerrank
- MATLAB onramp Certification by Mathworks
- Algorithmic Toolbox Certification by Coursera

PERSONAL INTERESTS

Human Evolution, Different Cultures around the globe, Gaming, Mathematics