# Manan Agrawal

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# **ABOUT ME**

I am currently exploring deep learning and artificial intelligence in multidisciplinary areas. I have a good understanding of various neural networks like CNN, GANs, RNN, etc.

I also have a good amount of experience as a full-stack developer and UI/UX web designer. Currently looking for new opportunities to level up my skills.

# **EDUCATION**

#### **BITS PILANI, PILANI CAMPUS**

Msc. Economics, BE IN EEE August 2019 - Present

# SD JAIN MODERN SCHOOL CBSE

2018 | Surat, India

## COURSEWORK

Machine Learning

Deep Learning

Convolutional Neural Networks

App Development

Web Development

**Econometric Methods** 

Fundamentals of Finance and

Accounting

Derivatives and Risk Management Probability and Statistics

# SKILLS

#### **PROGRAMMING**

Languages:

Python • Javascript • HTML/CSS • Dart

Golang • C++ • C • Solidity(Ehtereum)

Frameworks:

React JS • React Native • Flutter •

TensorFlow • PyTorch • NodeJS •

Django • Flask

Libraries:

NumPy • Pandas • OpenCV • SciPy

MatPlotlib

Softwares:

Adobe Illustrator • Figma • Adobe XD Autodesk

#### **EXPERIENCE**

#### **CARNEGIE MELLON UNIVERSITY** | RESEARCH INTERN

January 2023 - Present | Remote

- Working with Dr. Min Xu and Dr. Fang from Fudan University, Shanghai
- Developing the a monocular image depth estimator for the grayscale nanotubes images.

#### MCEME, SECUNDERABAD | RESEARCH INTERN

May 2021 - Aug 2021 | Remote

- Worked on a speech recognition using AI to understand human speech and convert speech to text.
- Developed Chinese text to Hindi text translator with LSTM based model with a maximum BLEU score of **0.32**.

#### **ILRNU INC.** | FULLSTACK DEVELOPER

Oct 2020 - December 2020 | Remote

- Worked with the team on the 2.0 update of the website refactoring the current design and adding new features
- Migrated website database from mySQL to mongoDB collections.

### **PROJECTS**

#### **BLOCKCHAIN FOR AGRICULTURAL SUPPLY CHAIN**

Aug 2022 - Present | Prof. Byomakesh Debata

• Working on the innovative potential of blockchain and smart contracts for supply chain finance (SCF), with a focus on the agricultural food chains in India to ensure product traceability and secure data storage.

#### **GOOGLE BERT MODEL ON SQUAD DATASET**

May 2022 - Jul 2022 | Independent

- Achieved an EM score of **86.9** and an F1 score of **93.15** by implementing google BERT on the SQuAD dataset.
- Optimized the model to process long context documents.

#### DRONE-BASED MONITORING OF INDIAN ROADS

Dec 2021 - May 2022 | Prof. Pratik Narang

- Worked on a system to detect road damages using drone images.
- Collected data-set using drone for real-time prediction of road cracks.
- Implemented the current design using the GANs, CNN and Detr object detection algorithm, the final deployment will be in python.

# POSITION OF RESPONSIBILITY

#### **DEPARTMENT OF VISUAL MEDIA** | COORDINATOR

Aug 2019 - Present | BITS Pilani

- Worked as a team lead for conducting the BPL 2022
- Developed various websites and web applications for the college fests

#### NATIONAL SOCIAL SCHEME | COORDINATOR

Aug 2019 - Present | BITS Pilani

• Planned and organized the first online educational initiative in the organization for class 6th to 10th students, organised 3 day long series on Cybersecurity