# Sagnnik Biswas

### **EDUCATION**

### Manipal Institute of Technology

October 2020 - June 2024

BTech - Electronics and Communication - CGPA - 8.00 (present)

Manipal, Karnataka, India

### Research Interest

Deep Learning, Computer Vision, Robotics, Adversarial Networks

Developing Robotics Perception, Adversarial Networks and Unsupervised learning techniques piques my interest

### **Domains**

• Deep Learning

• NLP

• Representation

• GANS

• Computer Vision

• Robotics

Learning

### PROJECTS

### Google PlayStore ratings Pytorch, Sklearn, Tensorflow

February 2023

• EDA on the google play store dataset

• Predicting the ratings of the apps

### Understanding Autoencoders 🗷 | Tensorflow

March 2022

• Representational Learning using ANN and CNN layers.

• Reducing noise in Data with Denoising Autoencoders.

### DCGAN ♂ | Pytorch

July 2022

• Implementation of DCGAN paper.

• Generating fake images of celebrities.

### Pix2Pix ♂ | Pytorch

August 2022

• Implementation of Pix2Pix paper.

• Implementing on MAP dataset to get a clean map view

## Finetuning Image Difference Captioning Models Pytorch

March 2023

• Finding the Difference between two pairs of Images in captions

• Finetuned with CRIPP-VQA Synthetic data

### EXPERIENCE

#### RoboManipal December 2020 - Present

Electronics Subsystem Member

MIT, Manipal

- Developing and Designing Circuits, CADs.
- Automation of Robots.
- Selected for Nationals in ABU Robocon, 2022.
- First place in Circuit Fixer, an event organized by COEP, Pune.

### Research Internship

# IIT Kharaqpur

December 2022 - Present

- Counterfactual Reasoning in Language and Vision datasets and Image Difference Captioning
- Under the guidance of Asst. Prof. Somak Aditya

### TECHNICAL SKILLS

Languages: Python, Java, C, C++

Developer Tools / Frameworks: Tensorflow, Pytorch, NumPy, Matplotlib, OpenCV, Pandas, Scikit-Learn,

Arduino, EagleCAD, MatLab

Additional Skills: PCB designing, Assembly Language Coding, Verilog

### EXTRACURRICULAR

#### OpenCV workshop December 2021

Co-Presenter

• Working out live demos.

### CERTIFICATIONS

• Machine Learning Specialization - Coursera

• GANS Specialization - Coursera

• Deep Learning Specialization - Coursera

MIT. Manipal