

Soham Chitnis

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EDUCATION

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI

B.E. (HONS.) IN COMPUTER SCIENCE

Aug 2024

CGPA: 8.5/10

COURSEWORK

UNDERGRADUATE

Data Structures and Algorithms

Database Management System

Object Oriented Programming

Computer Programming

ONLINE

Deep Learning Specialization

Machine Learning by Stanford

CS231n by Stanford Online

WORKSHOPS

Fundamentals of Deep Learning by
NVIDIA DLI

Building Transformer Based Natural
Language Processing Applications by
NVIDIA DLI

SKILLS

PROGRAMMING

Python, C/C++, Java, SQL

FRAMEWORKS

Pytorch, Tensorflow/Keras

PYTHON LIBRARIES

Numpy, Scikit-Learn, OpenCV, Pandas

OTHERS

Linux programming, HTML, CSS

VOLUNTEER

EXPERIENCE

Member, Society for AI & DL

Core Member, Electronics & Robotics
Club

TEACHING EXPERIENCE

Winter 2021 | Mentor -

Mathematics-II(Linear Algebra & Complex
Analysis)

Spring 2022 | Teaching Assistant -

Computer Programming

Summer 2022 | Instructor - Introduction
to Deep Learning

EXPERIENCE

CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE (CSIR-CEERI) | RESEARCH INTERN

May 2022 - Ongoing

HYPERSPECTRAL IMAGING FOR POLYMER CHARACTERIZATION IN PLASTIC SEGREGATION

SUPERVISOR: DR. MADAN KUMAR LAKSHMANAN

Working on Hyperspectral Image (HSI) Classification for plastic segregation.

Conducted pre-processing of data and benchmarking models. Implemented

self-supervised learning methods like SimCLR and supervised learning on

CNNs achieved 99.37% accuracy.

APPCAIR, BITS PILANI | UNDERGRADUATE RESEARCH COLLABORATOR

Feb 2022 - May 2022

MOLECULE GENERATION USING DEEP GRAPH GENERATORS

SUPERVISOR: DR. TIRTHARAJ DASH

Molecular data incorporated with domain knowledge using BotGNNs and
this data was used to generate molecules. Molecular data was generated

using Variational Graph Autoencoders.

PROJECTS

SUPER-RESOLUTION CONVNET IMPLEMENTATION | CODE

Implemented the paper Image Super-Resolution Using Deep Convolutional
Networks & Photo-Realistic Single Image Super-Resolution Using a
Generative Adversarial Network and conducted some experiments

PROJECT KRATOS | WEBSITE

Developing Mars Rover for the University Rover Challenge (URC). In year
2022 at URC, team stood at 1st in India, 2nd in Asia and 20th worldwide.

Worked on Rock analysis using Computer Vision. Built a Deep Learning
model for detecting presence of life in rocks.

COMPARATIVE STUDY OF REWARD FUNCTIONS ON POLICY GRADIENT | CODE

Conducted a comparative study on different reward functions with Policy
gradient algorithm using Gaussian Distribution

ADVERSARIAL DEEP LEARNING | CODE

Worked as Contributor on this project, added tutorials for the implemented
models for the book Adversarial Deep Learning

MLDATASETS.JL | CODE

Machine Learning datasets in Julia Language. Worked as contributor for the
project. Added PolBlogs Graph Dataset.

ACHIEVEMENTS

Maharashtra CET (MHT-CET) Percentile: 100 % (Overall), 100 % in
Mathematics in 2020

All India JEE ADVANCED 2020 Rank 3343

Dr Homi Bhabha Balvaidayanik Exam : Silver Medal for project Cultivation of
Butterfly Garden for Conservation and Enhancement of Biodiversity in 2017