



TANMAY DEVALE

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OBJECTIVE

Hardworking student offering part-time work experience and extensive knowledge of the core subject matter. Meticulous and detail-oriented with excellent observational, organizational, and communication skills. Committed to learning, developing skills in Data Science, Artificial Intelligence, and Machine Learning. Self-directed and energetic with superior performance in both autonomous or collaborative environments working independently and collaborating with others on group projects.



EDUCATION

B.E.(Hons.) - Computer Science | BITS Pilani

AUG 2019 – PRESENT

A consistent **merit scholar** which is awarded to the top 1% of the institute.

Ranked #6 in the institute with current CGPA 9.58/10.

B.E. (Minor) – Data Science | BITS Pilani

AUG 2021 – PRESENT

Ranked #1 with current CGPA 10/10.

Senior Secondary school | Maharashtra HSC Board

2019 – GRADUATED



SKILLS

LANGUAGES & DATABASES

C ♦ C++ ♦ Python ♦ Java ♦ Matlab
MySQL ♦ PostgreSQL

TOOLS AND FRAMEWORKS

Pytorch ♦ OpenCV ♦ Scikit-learn ♦ Keras ♦ MM Detection ♦
Simulink ♦ NLTK ♦ Pandas ♦ Numpy ♦ Docker ♦ GitHub



ACADEMIC INTERNSHIPS

Intern | Central Electronics Engineering Research Institute

MAY 2021 – PRESENT

Segmentation of 3D CT scans of lung nodules.

*Under the guidance of **Dr. Dhiraj Sangwan**.*

- Used Cascade Regional Convolutional Neural Network (R-CNN) for Deep Learning algorithms for segmentation of lung nodules in 3D Lung CT, as part of a two-member team.
- Augmented the LIDC-IDRI Dataset using image projection.
- Used a Generative Adversarial Network to benign lung nodules into clean CT scans to increase the available data.
- Used the MM Detection open-source framework to train and test the augmented dataset.



ACADEMIC PROJECTS

Academic Project | Computing Education Research Lab, BITS Pilani, Goa, India

MAY 2021 – PRESENT

A Git and Docker-based Toolchain for Introductory CS Courses

Under the guidance of Prof. Swaroop Joshi and Prof. Pritam Bhattacharya

- Exploring ways of improving learning modalities for CS1 CS2 courses.
- Obtaining uniformity while running code on different platforms by different users.
- Finding common syntactical and logical errors made by novice programmers.

Academic Project | BITS Pilani, Goa, India

DEC 2021 – PRESENT

Approximation capability of Deep Neural Nets in Multimodal Data Inference

Under the guidance of Prof. Snehanshu Saha

- Applying various machine learning techniques to predict the prognosis of cancer.
- Working on multimodal genetic data from breast cancer patients.
- Will work on pan-cancer data in near future.

Course Project | BITS Pilani, Goa, India

NOV 2021 – DEC 2021

Supervised, Self-supervised and Semi-Supervised Learning on STL-10 dataset

Under the guidance of Prof. Tirtharaj Dash

- Exploring various learning modalities on STL-10 dataset.
- Trained a fully supervised model on the Resnet9 model to obtain an accuracy of 74%.
- Trained a fully self-supervised model using Barlow Twins method to obtain an accuracy of 76%.
- Trained semi-supervised by pseudo-labeling unlabeled data to obtain an accuracy of 73%.



TEACHING EXPERIENCE

Autumn 2022

CS F320 Foundations of Data Science | Faculty: Prof. Snehanshu Saha

MATH F231 Number Theory | Faculty: Prof. Vijay Patankar

CS F425 Deep Learning | Faculty: Prof. Tirtharaj Dash, Prof. Tanmay Verlekar

CS F111 Computer Programming | Faculty: Prof Swaroop Joshi

Spring 2021

CS F222 Discrete Structures for Computer Science | Faculty: Prof. Anup Matthew

CS F214 Object Oriented Programming | Faculty: Prof. Neena Goveas



RESPONSIBILITIES

Coordinator | Peer Mentorship Program, BITS Pilani Goa Campus

JUN 2021 – PRESENT

Working in the coordinating team for the peer mentorship program of 5 members to conduct the selection process of mentors for the next academic year, registration sessions, and introduced field-specific sessions to help students gain exposure to different industries even in a remote education model.



OTHER ACHIEVEMENTS

Innovation | Finalist in Uber HackTag 2.0

Uber HackTag is an innovation challenge for engineering students.

Presented an idea as a team around setting rides using scheduling algorithm that learns, predicts and optimizes the trips for drivers and yet guarantees service to users. Also Benefit Uber Eats which is food delivery from Uber in India.

[Link to project GitHub](#)