

Tanvi Karandikar

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📍 Tanvi141

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EDUCATION

IIIT HYDERABAD

B-TECH (HONOURS) IN COMPUTER
SCIENCE AND ENGINEERING
2018-2022 | CGPA: 9.69

SKILLS

LANGUAGES

C, C++, Python, JavaScript, Bash,
HTML5, CSS

FRAMEWORKS

Flask, Bootstrap, React, React Native,
Node JS, d3 JS

MISCELLANEOUS

MySQL, JQuery, Git, Arduino, MongoDB

COURSEWORK

Machine Data and Learning
Statistical Methods in AI
Information Retrieval and Extraction
Digital Image Processing
Linear Algebra
Data Structures and Algorithms
Operating Systems
Data Visualization
Digital Signals Analysis

TEACHING ASSISTANT FOR:

Operating Systems and Networks

ACHIEVEMENTS

DEAN'S LIST 1

Award for being a college top ranker.

AICWIC LADY ADA PROGRAMMING CONTEST

Cleared interview round with rank 8.

UBER SHE++

One of the top 50 participants in the
country selected.

LEADERSHIP ROLES

MUSIC CLUB COORDINATOR

Organising and managing various events

APEX MENTOR

Responsible for induction of new students

MENTOR AT OSDG (OPEN SOURCE DEVELOPMENT GROUP)

Mentoring a team of first years in working
on an open source project

SPORTS REPRESENTATIVE

Organising, participation in events

EXPERIENCE

UNDERGRADUATE RESEARCH ASSISTANT | PRECOG AT IIIT-DELHI

Since May 2020 | Advisor: Prof Ponnurangam Kumaraguru
Working on analysis of Twitter data to understand the actors and their contribution
to online social movements. Also working on using hyperbolic embeddings to
represent data for community detection. Published a python library: **hypmaps** to
map points between Euclidean and Poincare manifolds.

OPEN SOURCE CONTRIBUTOR | CODEZONED AT IIT-JODHPUR

June 2020 - August 2020

Worked as an Open Source contributor to write the code for the AdaBoost
multi-class classification machine learning algorithm. Implementation includes
writing code for the GPU in CUDA.

PROJECTS

WIKIPEDIA SEARCH ENGINE MONSOON 2020 | PYTHON

Wrote code to compress any Wikipedia dump to an inverted index of 1/4th
the size. Can further process the index to return top matching results for any
search query based on tf-idf score. Also supports field queries.

SPOTIFY RECOMMENDER SYSTEM MONSOON 2020 | PYTHON

A recommender system that uses Spotify playlist data to recommend songs
given any Spotify input song. Supports intricate queries like iterative
searching, mood-based searching etc. Used algorithms like network
embedding, linear regression and clustering to implement.

REFLECTION REMOVAL IN IMAGES MONSOON 2020 | MATLAB

MATLAB implementation of paper titled, "Reflection Removal using Ghosting
Cues". Extracted the reflected layer from the image for enhancement

LINUX SHELL IN C MONSOON 2019 | C

A command line interface based on the Unix Bash shell. Supports multiple
commands per line, signal handling, and chained redirection and piping.

TAIWAN POLLUTION DATA VISUALIZATION SPRING 2020 | D3 JS

Designed an interactive page using data visualization concepts to display
trends of Taiwan Air Pollution. Includes an interactive map and various
configurable views.

MULTITHREADING EXAMPLES MONSOON 2019 | C

Used concepts of multithreading, mutex locks, semaphores and process
synchronization to implement two real life systems:

- A cab booking system that simulates booking of two types of cabs, pool
and premier. Also implemented timed wait.
- A system that simulates chefs cooking meals and serving to tables which
in turn serve students arriving at random times.

MACHINE LEARNING ALGORITHMS SPRING 2020 | PYTHON

Compilation of implementation of various machine learning algorithms and
concepts including genetic algorithm, linear regression and analysis of
bias-variance trends, value iteration, decision trees and POMDP.

RESORT MANAGEMENT SYSTEM MONSOON 2019 | PYTHON, SQL

Developed a terminal based interface to manage and store data of daily
workings of a resort chain.