Sarthak Singhal

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FDUCATION

IIIT HYDERABAD

B.Tech in Computer Science August 2017 - May 2021 (expected) CGPA: 8.81/10.0

SKILLS

Day to Day:

• C • C++ • Python • Bash • SQL • CSS • HTML5

Familiar:

• Javascript • Matlab • Django • Flask • Bootstrap • Numpy • Git • Linux

POSITIONS

- **Teaching Assistant:** Manage class of about 250 students for Psychology course.
- Class Representative: Act as a mediator between students and faculty.
- Open source contributor at Codeuino and TheAlgorithms.
- **Team Leader** for several projects done in college.

RELEVANT COURSES

- Computer Programming Data Structures • Software Analysis •
- Engineering Systems Operating Systems
- Database Systems Distributed Systems
- Graphics Artificial Intelligence SMAI Machine Learning Information Security Data Mining Hydrological Modelling Complexity Theory

ACHIEVEMENTS

- One out of 1523 fellows selected for the prestigious **KVPY scholarship** (2016-2017) by IISC and DoST, Government of India
- Secured IIT JEE (mains) rank **990** among 1.2 million people
- Secured IIT JEE (advanced) rank **1953** among .15 million short listed people

CODING PROFILE

- Codeforces max rating 1531
- Secured **1753rd** global rank among 8K people in Google kick start round D 2020
- Secured **1901st** global rank in Round 1 of Facebook Hacker Cup 2020

WORK EXPERIENCE

SOFTWARE TRAINEE ONEPLUS

Hyderabad | Delayed due to virus outbreak

SOFTWARE DEVELOPER MYHEALTHBUDDY

June 2020 - August 2020 | WFH

- Automated the manual task of entering customer sale details into the database by creating dynamic forms.
- Worked on role based dashboard and added functionalities specific to the role.

SOFTWARE ENGINEER AIDED

May 2019 - September 2019 | Hyderabad

- As a software engineer my role was to setup and manage the website, web-application and database for the company.
- Designed automated reports based on the data entered through the web application.

RESEARCH ASSISTANT LAB FOR SPATIAL INFORMATICS

January 2020 - Present | Hyderabad

- Analyze how water and energy zones of India vary with rainfall and temperature.
- This analysis was done at different temporal and spatial scales to account for different climatic conditions.

SELECTED PROJECTS

LINUX SHELL OPERATING SYSTEMS | C

• Implemented a bash like shell for Linux with support for piping, redirection and several other commands, written using system calls.

SCALABLE WEB CACHE DISTRIBUTED SYSTEMS | PYTHON

• Built a miniature scalable web cache for distributed setting which handles simultaneous requests from multiple clients.

SQL ENGINE DATABASE SYSTEMS | PYTHON

• Built a mini sql engine which runs a subset of sql queries using command line interface.

AI BOT ARTIFICIAL INTELLIGENCE | PYTHON

• Implemented an AI bot using Minimax algorithm and Alpha-Beta pruning which plays ultimate tic tac toe (modified version of tic tac toe).

FACE CLASSIFICATION MACHINE LEARNING | PYTHON

• Performed classification on face images and compared the results by applying different feature transformations and models.

MARKET-BASKET ANALYSIS DATA MINING | PYTHON

• Extract associations among items bought by customers by applying apriori algorithm on transaction data.

GAME DESIGNING GAME DEVELOPMENT | C++. OPENGL

• Built 2D arcade game and 3D flight simulator game with support for multiple camera views for enhanced gameplay.