

Aryan Dubey

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EXPERIENCES

SAMSUNG | SOFTWARE DEVELOPMENT INTERN

Jun'23 - Aug'23 | Bangalore, Karnataka

Skills: Python, Research, Deep Learning, Algorithms.

- Paper titled "Coding Unit Partitions through Depth-wise Separable Convolution in VVC" accepted for presentation at **IEEE Globecom**.
- Pioneered an innovative approach for accelerating video encoding / decoding processes with higher accuracy using **Depth-wise Separable Convolution**.
- Significantly improved model performance, **reducing errors** by 40%, **inference time** by 30%, and lowered the **bit-rate**.

CENTROSIS TECH | FULL STACK DEVELOPER INTERNSHIP

Dec'22 - Mar'23 | Hyderabad, Telangana

Skills: MongoDB, Express.js, ReactJS, Node.js, Tailwind.

- Built an e-commerce website that **boosted productivity** by 20%, features including product listing, a cart, a wishlist, and a user-friendly admin panel.

IHUB-DATA | FULL STACK DEVELOPER INTERNSHIP

Aug'22 - Nov'22 | Hyderabad, Telangana

Skills: MySQL, Express.js, ReactJS, Node.js, Tailwind.

- Built **10+ pages**, cut **loading time** by 30%, and handled login/signup, group, discussions, and more, both frontend and backend.

CCNSB LAB | UNDERGRADUATE RESEARCHER

Jul'21 - Present | Hyderabad, Telangana

Skills: Python, Research, Machine Learning

- Working on how environmental identity is encoded intracellularly on **10 different Transcriptional Factors**.
- Used Support Vector Machines (SVM) to determine the information theoretic parts of the dynamics of the transcription factors.

PROJECTS

C SHELL | Nov'21 |

Tools Used: C

- Implemented a **shell** from scratch that can create and manage new processes.
- Execution of commands in foreground/background, commands like cd, ls and file redirection commands are implemented. Some custom commands like pinfo, replay are also present. Pinfo and Replay are also present.

JOB APPLICATION PORTAL | Oct'21 |

Tools Used: MongoDB, Express.js, ReactJS, Node.js.[MERN Stack]

- Developed a **REST-based** job portal web application enabling users to **search and apply** for diverse job profiles while highlighting their skills.
- Empowered recruiters to **post jobs** according to their specific requirements.

BRICK BREAKER GAME | Feb'21 |

Tools Used: Python

- Developed a terminal-based 2D brick breaker game using **OOPS** concepts with **power-ups** like paddle size modifiers.
- Advanced levels feature moving bricks and a challenging **Boss enemy**.

EDUCATION

IIIT HYDERABAD

B.TECH IN COMPUTER SCIENCE +

MS BY RESEARCH

Jul'19 - Present | Hyderabad

SKILLS

LANGUAGES

C/C++, Python, JavaScript, Bash

FRAMEWORK

React.js, ExpressJS, Bootstrap

LIBRARIES AND OTHERS

Numpy, Pandas, Matplotlib, Linux, Node.js, MySQL, MongoDB

ACHIEVEMENTS

Dean's Merit List - Awarded to the top 5% students in Monsoon Sem'20

KVPY - Achieved 408 rank in KVPY among 1.5 million+ students.

Kick Start Round F - Achieved 1738 rank among 13000+ participants.

Meta Hacker Cup Round 2 - Achieved 2106 rank among 17000+ participants.

RESPONSIBILITY

TEACHING ASSISTANT

Spring'22 | Science-2 | IIIT-H

Handled 250+ students in the course.

Conducted tutorials, lab sessions and designed assignments.

MUSIC CLUB COORDINATOR

Monsoon'21 | Unplugged | IIIT-H

Took auditions, arranged equipment and planned a well-organized event at an apt venue for 1000+ audience.

COURSEWORK

Data Structures and Algorithms

Operating Systems and Networks

Design and Analysis of Software Systems

Data and Applications

Statistical Methods in AI

Machine Data and Learning