

# DEVESH MARWAH

IIIT Hyderabad

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## Education

### IIIT Hyderabad

Sep. 2020 – May 2025

BTech+MS in Computational Human Sciences (CGPA: 9.03/10)

Hyderabad, India

## Relevant Coursework

- Data Structures
- IR and Extraction
- Software Methodology
- Algorithms Analysis
- Database Management
- Machine Learning
- Systems Programming
- Intro to NLP
- Spatial Informatics
- Automata Theory
- Linear Algebra

## Experience

### NALSAR

June 2022 – August 2022

Research Intern

Hyderabad, India

- Involved data scraping and analyzing the judgements of Supreme Court of India.
- Utilized Python and libraries like Beautiful soup to extract and then implement Bi LSTMs for sentiment analysis.

### Metalok, Inc

April 2022 – August 2022

Front End Developer Intern

Hyderabad, India

- Assisted in development of the front end of a blockchain web application for using React, Firebase Web3 and deployed it using AWS

### PayMatrix, Inc

January 2022 – April 2022

Full Stack Developer Intern

Hyderabad, India

- Developed a SaaS product application using NestJS, TypeORM, MySQL and React.
- Learnt to deploy the website using heroku and use cloud backend like MongoDB Postgres.

## Projects

### Multilingual Text Summarization, Generation | Python, PyTorch

November 2022

- It involved looking up at existing models like mt5, mBART, Primera and implementing and finetuning them for summarization tasks and also try some new approaches in three languages: Hindi, English Gujarati.
- Achieved a rouge-1 score of nearly 25 on Gujarati, the State of the Art is nearly 26 on the same task.

### CoCoGen | Python, Pytorch, Generation

November 2022

- The project was then generated to make a code generator for a given piece of code and different approaches which involved use of ASTs were tried and tested after doing a classification task.
- They were mainly done on Java and Python and state of art ROUGE score of 43 is achieved.

### Beginner AI | Python, Tensorflow, Reinforcement Learning

December 2021

- Made a Custom Google's DeepMind AlphaGo for the game of Connect4.
- Involved the usage of MCTs for testing it against classical MinMax Techniques and comparing them.

### C-Shell | C, Shell Scripting, Linux

September 2022

- Implemented the linux bash terminal in C with various commands like cd, ls, echo, autocomplete on tab, history and few custom commands like discover, background and foreground process handling
- Also did projects for MultiThreading, Networking and Kernel xv6 under the course of OSN

### Wikipedia Search Engine | Python, Retrieval: September 2022

- Developed a search engine which indexes text to 1/4th of original size and performs search operation on them with custom queries in 10 seconds on wikipedia dump of 90+GB
- Implemented for 10+ languages on a smaller dump too

## Technical Skills

**Programming:** Python, C++, C, HTML/CSS, JavaScript, SQL, Bash, Assembly x86, Socket Programming

**Developer Tools:** VS Code, Eclipse, ReactJS, NestJS, Postgres, Pytorch, Tensorflow, TypeORM, Docker, GIS, Web3

## Leadership / Extracurricular

### TA

October 2022 – Present

- TA for Data and Applications Course and Intro to Human Sciences which involved setting up Coursework.
- Currently a TA for Intro to Human Sciences course.

### Awards

2021

- Recipient of Deans List 1 for Spring 2021, awarded to top 5% of students
- Recipient of Deans List 2 for Monsoon 2021, awarded to top 10% of students

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