Mallika Subramanian

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EDUCATION

IIIT HYDERABAD
B.Tech. with Honours in Computer Science Engineering
2018-2022 | CGPA: 9.48

TECHNICAL SKILLS

Languages
C, C++, Python, Java, Bash, HTML5, CSS, Javascript, JQuery

Frameworks
PyTorch, Tensorflow, Django, MATLAB, Flask, React JS, React Native, Express, NodeJS, Android Studio

Databases
MySQL, MongoDB, PostgreSQL

COURSEWORK

INSTITUTE COURSES
Data Structures & Algorithms
Machine Data & Learning
Operating Systems
Probability & Statistics
Data and Applications [Also a TA]
Statistical Methods in AI
Info. Retrieval & Extraction
Digital Image Processing
Computer Vision
Human Computer Interaction
Advanced NLP*
Data Analytics*

POSITIONS

Lean In IIITH:
Admin for the IIITH chapter
Ping! IIITH:
Magazine's Creative Director

ACHIEVEMENTS

Dean's List Awardee:
Amongst the top 10% of students for academic years 2018-21

RESEARCH

PRECOG IIIT HYDERABAD | Undergraduate Researcher
May. 2020 – Present | Hyderabad, IN

- Advised by Prof. Ponnurangam Kumaraguru, working on projects revolving around social computing and NLP for social good.
- Our work on "Battling Hateful Content in Indic Languages HASOC '21" was accepted at the FIRE '21 conference for the CEUR proceedings.
- Collaborated with Digital Green India and Prof. Kiran Garimella to understand and provide focused assistance to farmers for agricultural adoptions. Submitted a research paper to The Web Conference 2022 with our findings for the same.

EXPERIENCE

GOOGLE INDIA | Software Engineering Intern
May. 2021 – July. 2021 | Bangalore, IN

- Worked with the GSeekh team for the Read Along android app.
- End-to-end implementation of a new and unique feature enhancing the app.
- Leveraged Google's LaMDA language model specific to the app's use case.
- Incorporated the Google Cloud APIs for Speech Recognition and TTS.
- Tech Stack used: Java, Protocol Buffers, Stubby Clients, Android.

GOOGLE INDIA | STEP Intern
May. 2020 – June. 2020 | Bangalore, IN

- Worked with the Google Maps team and built a Time Lapse Visualiser. A web application that can be used to visualise customizable geographic datasets.
- Tech Stack: ReactJS, Django REST frameworks, GMaps API – Project Demo

MICROSOFT ENGAGE | Mentee: Program Engage 2020
July. 2020

- Worked with a team of 4 to build an AI driven Tic Tac Toe with incremental levels of difficulty under the guidance of the mentors at Microsoft.

MAJOR PROJECTS

REVIEWS' SENTIMENT ANALYSIS
Built a text classifier for sentiment analysis using BERT, Huggingface and PyTorch for a data set of Google Play Reviews.

ANUVAAD MACHINE TRANSLATION
An English to Hindi neural machine translation implementation built using LSTMs and GRUs on the well known IITB corpus.

REFLECTION REMOVAL
Implementation of the CVPR paper on Reflection Removal, an algorithm that performs post-processing on images to remove reflection artifacts.

SPOTIFY RECOMMENDER
A recommender system built with a dataset of 40,000 Spotify playlists using network embeddings and clustering approaches.

MAZE - WIKI SEARCH ENGINE
A search tool built in python, on a standard dump of Wikipedia articles. Uses a corpus of approximately 40GB data. Supports normal and field queries.