

Suryatej Reddy Vyalla

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Education

Indraprastha Institute of Information Technology (IIIT) Delhi

BACHELOR OF TECHNOLOGY (B.TECH), COMPUTER SCIENCE AND ENGINEERING (CSE)

New Delhi, India

Aug 2016 - Present

• GPA: 9.35/10.0

- Selected Coursework: Deep Learning, Machine Learning, Information Retrieval, Semantic Web, Reinforcement Learning, Computer Graphics, GPU Computing, Computer Networks, Data Structures and Algorithms, Systems Management, Linear Algebra, Probability and Statistics

Our Own English High School (OOEHS)

CLASS XII, AISSCE CBSE

Percentage: 96.6%

Sharjah, UAE

May 2016

Research

Massachusetts Institute of Technology (MIT)

RESEARCH ASSISTANT

Remote

July 2019 - Present

• Advisor : Dr. Kiran Garimella

- Studying misinformation on WhatsApp during the Indian General Elections 2019
- Built intuitive interfaces for journalists, researchers, and students to annotate WhatsApp chats recreated from data.
- Developed tools to index and search large data using ELK stack.

Precog, IIIT Delhi

UNDERGRADUATE THESIS

New Delhi, India

Jan 2018 - Present

• Advisor: Dr. Ponnurangam Kumaraguru

- Built a scalable system to collect multimodal data from public WhatsApp groups
- Developed an android application that got **featured in Times of India**. <http://bit.ly/whatsfarzi>
- Worked on detecting and mitigating privacy leaks on twitter (*paper under review*).

CoronaActionIndia

RESEARCH ENGINEER

New Delhi, India

March 2020 - Present

• Advisors: Dr. Tavpritesh Sethi, Dr. Ponnurangam Kumaraguru

- Worked on Agent Based and Classical Compartmental Models in collaboration with a team of medical researchers
- Built an interactive dashboard deploying the models for live graphs. <http://covision.tavlab.iiitd.edu.in>
- Built an NLP dashboard to speed up knowledge discovery during the Covid19 pandemic <http://covidnlp.tavlab.iiitd.edu.in>

Industry

TCS Innovation Labs

RESEARCH INTERN

New Delhi, India

May 2019 - July 2019

• Advisor : Dr. Arnab Chatterjee

- Setup a multi threaded architecture to collect deleted and removed comments from Reddit
- Trained a text classifier on removed comments to automate content moderation on Reddit
- Generated high-dimensional representations of Reddit user profiles based on activity for clustering

Open Transit Data Delhi

DATA SCIENCE INTERN

New Delhi, India

Sep 2018 - Nov 2018

- Project done in collaboration with **Government of NCT of Delhi** and supervised by Transport Minister of New Delhi.
- Developed algorithms to process timetable of public buses of Delhi and account for the irregularities in live logs from the buses.
- Built a robust system to convert this data into General Transit Feed Specification (GTFS) which is a global standard for transit data.
- Delhi is the **first city in India to open up transit data** to public. Link to data: <https://otd.delhi.gov.in/>.

MyWanderlust.in

SOFTWARE ENGINEER INTERN

New Delhi, India

May 2017 - Jul 2017

- Worked on asynchronous data collection of users from Facebook and Instagram using celery queues that brought down compute time by 35%.
- Built a web based messaging platform for users from scratch using AJAX
- Performed minor SEO tasks; Implemented like feature for posts

Publications

Memeify: A Large-Scale Meme Generation System

SURYATEJ REDDY VYALLA*, VISHAAL UDANDARAO*

Accepted at the ACM India Joint International Conference on Data Science & Management of Data (CoDS-CoMAD) 2020

Selected Projects

Deep Sentiments

Dr. Saket Anand

COURSE: DEEP LEARNING

Feb 2019 - Apr 2019

- Surveyed advanced deep learning techniques for sentiment analysis: Pure self-attention based models (transformers), Transfer Learning using Chain-Thaw method and Multi-Task learning.

Meme Retrieval

Dr. Tanmoy Chakraborty

COURSE: INFORMATION RETRIEVAL (IR)

Feb 2019 - Apr 2019

- Created a large meme dataset of 1.1 million captions across 128 meme classes. Built a cross modal IR system using CNN's and standard retrieval techniques learnt in course.

cudaRSA <https://github.com/cse-560-gpu-computing-2019/fastrsa>

Dr. Ojaswa Sharma

COURSE: GPU COMPUTING

Feb 2019 - Apr 2019

- Implemented RSA encryption and decryption in CUDA C and achieved speedups using optimizations in modular and bit level exponentiation.

Chain Reaction Game <https://github.com/suryatejreddy/ChainReaction>

Dr. Vivek Kumar

COURSE: ADVANCED PROGRAMMING

Oct 2017 - Dec 2017

- Developed the popular Chain Reaction Game in Java using OOPs concepts. The game also supports multiplayer mode on the same network.

Skills

Programming Languages Python, Java, C, Javascript

Data Science Frameworks PyTorch, Keras, Pandas, Sklearn

Development Tools and Technologies Django, Android Studio, MySQL, MongoDB, Docker, Celery, Redis, OpenGL, Git, LaTeX

Honors & Awards

- '17,'19 **Dean's List for Academic Excellence**, IIIT Delhi
- 2018 **4th Position India Region, Top 20 Worldwide**, CSAW CTF Finals Organized by NYU
- 2017 **4th Position**, Pragyan CTF Organized by NIT Tricity
- '16,'17 **1st Position, 2nd Position**, Scripting Challenge Organized by d4rkc0de
- 2016 **Gold Medal**, School Topper, OOEHS Sharjah UAE

Teaching and Leadership

Spring '19 **Teching Assistant**, Introduction to Engineering Design

IIIT Delhi

Fall '19 **Teching Assistant**, Computer Networks

IIIT Delhi

2017 - **Coordinator**, Byld, Software Development Club

Present

IIIT Delhi

2017 - **Core Member**, d4rkc0de, Cybersecurity Club

Present

IIIT Delhi

2017 **Event Head**, Stand Up Comedy

Odyssey, IIIT Delhi