

Suryatej Reddy Vyalla

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Education

Georgia Institute of Technology

MASTER OF SCIENCE IN COMPUTER SCIENCE

Atlanta, GA

Aug 2021 - May 2023 (Expected)

Indraprastha Institute of Information Technology (IIIT) Delhi

BACHELOR OF TECHNOLOGY (B.TECH), COMPUTER SCIENCE AND ENGINEERING (CSE) | GPA: 9.35/10

New Delhi, India

Aug 2016 - July 2020

- Selected Coursework: Deep Learning, Machine Learning, Information Retrieval, Semantic Web, Reinforcement Learning, Computer Graphics

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

Industry

Adobe Systems

MEMBER OF TECHNICAL STAFF, ADOBE CAMPAIGN R&D | C++, JAVA, JAVASCRIPT

New Delhi, India

Aug 2020 - Aug 2021

- Worked on improving recovery and error messaging of Remarketing Emails (Triggers)
- Fixed critical bugs related to Custom Resource API publication
- Delivered improvements to Push Notification delivery that reduced server load by 15% on high usage customers
- Developed an unsupervised learning based algorithm to filter logs that assists engineers during Customer Service Outages (CSO's).

Atrillu - Tech Enabled Marketing Solutions

CO-FOUNDER AND CTO | CONSULTING, TECHNICAL ADVISORY

Bengaluru, India

Aug 2020 - Aug 2021

- Worked on various aspects of startup ranging from hiring and meeting clients to making sales pitches and product development
- Lead a team of 5 that developed internal data dashboards for leading Marketing Agencies (Schbang, DjangoDigital) in India
- Developed and deployed intelligent (NLP based) marketing systems for clients (Amazon Prime Video, HDFC Life Insurance)

TCS Innovation Labs

RESEARCH INTERN | PYTHON, DATA MINING (CELERY, REDIS), UNSUPERVISED MACHINE LEARNING (PYTORCH)

New Delhi, India

May 2019 - July 2019

- 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 | Government of NCT, Delhi

DATA SCIENCE INTERN | SOCKET PROGRAMMING, DATA CLEANSING AND STRUCTURING (PANDAS)

New Delhi, India

Sep 2018 - Nov 2018

- This project made Delhi the **first city in India to open up transit data** to public. [Link]
- Developed algorithms to process live logs received from buses over linux sockets and cross linked with static timetable.
- Built a robust system to convert this data into General Transit Feed Specification (GTFS) which is a global standard for transit data.

MyWanderlust.in

SOFTWARE ENGINEER INTERN | DJANGO, JAVASCRIPT

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
- Implemented like and comment feature for posts.

Academic Research

Massachusetts Institute of Technology (MIT)

RESEARCH ASSISTANT | ADVISOR: DR. KIRAN GARIMELLA

Remote

July 2019 - August 2020

- Worked on the problem of misinformation on WhatsApp during the Indian General Elections 2019
- Experimented with various language models on WhatsApp specific data to identify coordinated messaging patterns
- 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 | ADVISOR: DR. PONNURANGAM KUMARAGURU

New Delhi, India

Jan 2018 - June 2020

- Built a scalable system to collect multimodal data from public WhatsApp groups
- Developed an algorithm using knowledge graphs and text embeddings to verify the authenticity of news articles.
- Built an android application that got **featured in Times of India**. <http://bit.ly/whatsfarzi>
- Led a team of 2 researchers in an exploratory study of NaMo App.
- Studied voter privacy leaks on Twitter during the Indian Elections.

- 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>

Research Publications

Memeify: A Large-Scale Meme Generation System [Link]

ACM CoDS-CoMAD 2020

SURYATEJ REDDY VYALLA*, VISHAAL UDANDARAO*

COBRA: Contrastive Bi-Modal Representation Algorithm [Link]

TUSION workshop, IJCAI 2020

VISHAAL UDANDARAO*, ABHISHEK MAITI*, **SURYATEJ REDDY VYALLA***, DEEPAK SRIVATSAV*, YIFANG YIN, RAJIV RATN SHAH

#IVoted to #IGotPwned: Studying Voter Privacy Leaks in Indian Lok Sabha Elections on Twitter [Link]

SocInfo 2020

SAURABH GUPTA, AGARWAL ANANT, **SURYATEJ REDDY VYALLA**, ARUN BALAJI BUDURU, PONNURANGAM KUMARAGURU

Selected Projects

Deep Sentiment

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.

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 d4rk0de
- 2016 **Gold Medal**, School Topper, OOEHS Sharjah UAE

Teaching and Leadership

- Fall '21 **Teching Assistant**, Computer Networks 1 GeorgiaTech
- Spring '19 **Teching Assistant**, Introduction to Engineering Design IIIT Delhi
- Fall '19 **Teching Assistant**, Computer Networks IIIT Delhi
- '17 - '20 **Coordinator**, Byld, Software Development Club IIIT Delhi
- '17 - '20 **Core Member**, d4rk0de, Cybersecurity Club IIIT Delhi
- '17 **Event Head**, Stand Up Comedy Odyssey, IIIT Delhi