KURISETI RAVI SRI TEJA

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ACADEMIC DETAILS

Year	Degree	Institute	CGPA/Percentage
2019-2023	B.Tech in Computer Science Engineering with Specialization in Data Analytics and Artificial Intelligence	Indian Institute of Technology, Delhi	8.64/10
2019	Class XII, AP State Board	Sri Chaitanya Junior College, Vijayawada	97.9%
2017	Class X, AP State Board	Sri Chaitanya School, Vijayawada	9.8/10

SCHOLASTIC ACHIEVEMENTS

- Secured AIR-65 Rank among 2.5 lakh candidates in JEE-ADVANCED Examination-2019.
- Secured **AIR-136** Rank among 10 lakh candidates in **JEE-MAINS** Examination-2019.
- Stood among the **TOP-35** candidates in **NSEP-INPhO** Examinations 2018-19 and was awarded **GOLD MEDAL** and Certificate Of Merit and attended the subsequent **Indian Orientation Cum Selection Camp** organized by **HBCSE(TIFR)** in **MUMBAI**.
- Stood among the **TOP-36** candidates in **INJSO** Examinations 2016-17 and attended the subsequent **Indian Orientation Cum Selection Camp** organized by **HBCSE(TIFR)** in **MUMBAI**.
- Secured AIR-37 Rank in KVPY-2017 in SA-Stream and became eligible for the KVPY Scholarship.
- Secured State 1st Rank among 1.9 lakh candidates in AP-EAMCET Examination-2019.
- Secured State 1st Rank among 1.3 lakh candidates in TS-EAMCET Examination-2019.
- Qualifed to appear in INMO-2018; INAO-2018; INAO-2019; INChO-2019; INPhO-2019.
- Secured 450/450 in **BITSAT-2019**.

*HBCSE: Homi Bhabha Centre for Science Education. *AIR: All India Rank.

PUBLICATIONS

Favoring One Among Equals - Not a Good Idea: Many-to-one Matching for Robust Transformer based Pedestrian Detection

- K.N Ajay Shastry, **K.Ravi Sri Teja**, Aditya Nigam, Chetan Arora

- Proposed a min-cost flow-based matching formulation to improve the detection of pedestrians on various pedestrian datasets using transformers.
- Achieved state-of-the-art results on various public datasets.
- To appear in the proceedings of IEEE Winter Conference on Applications of Computer Vision(WACV)-2024.

INTERNSHIPS

Cohesity, India NGCE Deployment

- Performed backend changes to add support for the Next Generation Cloud Edition
- Enabled the support for adding tags to GCP-clusters deployed with the Control VM image

[June'22 - July'22]

Courses Done

- Computer Science: Introduction to Computer Programming, Data Structures & Algorithms, Discrete Mathematics, Digital Logic & System Design, Computer Architecture, Operating Systems, Artificial Intelligence, Computer Networks, Programming Languages, Theory of Computation, Parallel Algorithms, Machine Learning, Analysis & Design of Algorithms, Cryptography, Data Mining, Deep Learning, Natural Language Processing, Computer Vision, B.Tech Project Parts-1,2.
- Mathematics: Probability & Stochastic Processes, Linear Algebra, Calculus, Number Theory.
- Electrical: Introduction to Electrical Engineering, Signals and Systems

TECHNICAL SKILLS

- **Programming Languages:** Python, Go, C++, Java, C
 - Also worked with HTML, CSS, VHDL, SML, Assembly Language
- Libraries: PyTorch, Numpy, Matplotlib, Open-CV, Open-MP, Open-MPI, Scipy, Pandas, CUDA, Huggingface

RESEARCH PROJECTS

- Object Detection using Transformers (Prof.Chetan Arora) (July 2022 June 2023)
 - Explored architectures of various state-of-the-art transformer-based object detectors.
 - Used DETR-based models to improve the accuracy of detecting various objects in the MAVI (Mobility Assistant for the Visually Impaired) Dataset.
 - Also worked on improving the accuracy of detecting pedestrians in various public datasets using transformer-based object detectors.

CS COURSE PROJECTS

• News Recommendations Using HNSW (Prof.Subodh Kumar) (March 2022)

- Used the Approximate Nearest Neighbour Search to provide news recommendations.
- Recommendations were provided on the basis of learnt HNSW predictions.
- Used Open-MPI and Open-MP to distribute the algorithm across multiple nodes and cores.
- Web Database System (Prof.Maya Ramanath) (March 2022)
 - Developed a Web Database System with a PostgreSQL database as backend
 - Used HTML,CSS,Flask and psycopg as frontend
- Chat-Application (Prof.Abhijnan Chakraborthy) (October 2021)
 - Developed a simple chat application using sockets in **Python**
 - Added support for both broadcast and unicast in the application.
- Multi-Core Processor Simulation (Prof.Preeti Ranjan Panda) (March 2021-May 2021)
 - Simulated a Multi-Core Processor that supports a sub-set of MIPS Instructions and Non-Blocking Memory in C++.

- Dialog Parsing for Task-Oriented Dialog Systems (Prof.Mausam) (April 2023)
 - Used pre-trained large language models to develop an NLP-Model that generates a parsed output based on the given context and dialogue information.
- Traffic Prediction (Prof.Sayan Ranu) (November 2022)
 - Used Spatio-temporal Graph Neural Networks to predict the traffic data in a road network for future time-stamps using data from past.
- Taxi-World Learning (Prof.Rohan Paul) (November 2021)
 - Implemented various reinforcement learning techniques such as Value Iteration, Policy Iteration, Q-Learning, SARSA to obtain the best possible policy for a taxi in a grid world that performs simple actions such as Pickup, Putdown, Move up, Move down, Move right and Move left.

CO-CURRICULAR ACTIVITIES

- Chess: Played Chess in State Level Competitions.
- Completed an Online course(**ARJUNA Webinars for Human Excellence or AWHE**) and also attended a workshop (**Prerana Workshop**) in 2019, conducted by the **ARJUNA GROUP TRUST**, a non-profit NGO.
- Rubik's Cuber: Can solve 2x2x2,3x3x3,4x4x4 Rubik's Cubes.