

Sai Akash Janapati

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Education

Academic Qualifications.....

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|---------------------------------------------|--------------------------|
| IIIT Hyderabad | Hyderabad, India |
| ○ <i>Computer Science (Bachelor degree)</i> | |
| CGPA: 7.64 at the end of 5th semester, | 2020–2024 |
| FIITJEE | Vijayawada, India |
| ○ <i>Class 12</i> | |
| Score: 97%, | 2018–2020 |
| Sri Chaitanya School | Nandyal, India |
| ○ <i>Class 10</i> | |
| Score: 10 GPA, | 2018 |

Coursework.....

Current Courses:

Distributed Systems, Principles of Information Security

Past Courses:

Data Structures and Algorithm , Statistical Methods in AI, Deep Learning Theory and Practices, Operating Systems , Computer Networks, Discrete Mathematics, Algorithm Analysis and Design, Machine, Data and Learning, Design and Analysis of Software Systems.

Experience

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|-------------------------------------------------------------------------------------------------------------------|---------------------------|
| SERC, IIIT-H | |
| ○ <i>Undergraduate Researcher</i> | May 2021 - September 2021 |
| Worked on designing and developing XR scenes, which were to be used in Cognitive Science Research | |
| Raj Reddy Centre for Technology and Society, IIIT-H | |
| ○ <i>Backend Developer</i> | January 2021 - April 2021 |
| Developed backend apis for a speech correction tool, that assess one's phonetic ability when speaking in english. | |

Notable Projects

- **Debates on Data Privacy and Protection:** *Towards a universal Policy*

I am part of a two member team, where we are trying to get a universal policy on Personal Data Protection. We carefully analyse the existing policies and figure out the issues with them and suggest appropriate corrections and check the technological possibilities of features included.

- **Aspect Based Sentiment Analysis** *A gated convolutional approach* We implemented an architecture involving gated units and convolutional layers to classify the sentiment of the text given with respect to term sentiment and class sentiment. This architecture and methods involved are taken from **this paper** and we achieved the results close to the specified in the paper.
- **Visualisation Recommendations:** *A visualisation recommender system using deep learning*
I implemented an end to end machine learning system where you input a dataset and the system uses a wide and deep model and scores all possible visualisation and outputs the most effective one. We used a combination of wide model and a deep model and the architecture and methodology are from this paper and got results similar to the one presented.
- **Occupancy Detection:** *An ML based solution to detect occupancy*
As part of this, with a team of 4, We developed an ML classifier which uses catboost to classify the number of people present in the room from the captured heatmaps. As part of this, we collected the data required to train the model ourselves using ESP32 CAM and IR Camera and stored it in Google Drive in OM2M.
- **Teaching Assistance tools for English Language Learning**
We, a team of 4 developed a user interface over a pre existing model that corrects and scores the phonetics of english speech. As part of this I developed the backend api, using NodeJS, Express and dealt with database that uses MongoDB
- **C-Shell:** *An interactive Unix style shell*
I implemented a unix style interactive shell using various system calls available. It has been implemented in C.
- **Design and implementation of Database:** *A database for course work of Students and Instructors*
We, a team of 3 designed a relational database, which is used by students and teachers of an institution to track their course work. Along with designing, We also implemented this using SQL in python with a command line interface to the database and one can query the appropriate information from command line.
- **Accident Detection System:** *An IoT Solution to detect accidents*
We, a team of 4 implemented a simple IoT solution, to detect accidents and send the information of the accident to emergency services and personal contacts collected earlier. We also detect when someone breaks into car and inform it to the user. We employed om2m to ensure interoperability of data being processed.
- **Covid Tracking** *'Development of an algorithm for travelling across cities'*
In this, given the data of primary and secondary contacts along with existing covid cases, we designed a graph algorithm that guides users to travel between any two cities, such that they are probably least infected out of all routes. It is a terminal utility and a team of 4

Technical and Personal skills

- **Programming Languages:** Proficient in: C, C++, Python, JavaScript
Also basic ability with: Assembly, C#
- **Frameworks:** ReactJS, MongoDB, SQL, NodeJS, MPI(Message Passing Interface), Express, om2m django, jekyll e.t.c.
- **Other Skills:** Develop models using Machine Learning and Deep Learning techniques, some hands on with NLP. Database Management, Developing distributed algorithms, including implementation using mpi.
- **General Skills:** Good ability to understand diverse views and explain them to all involved, Works well in a team, Negotiate when necessary.
- **Other:** Read and understand a lot and reproduce when required.

Interests and extra-curricular activity

- I am a sport enthusiast and especially when it comes to Tennis, I follow it all year long.
- I am very fascinated about how data can change the world, so I have been contributing to annotate datasets on Google crowdsource platform and other similar platforms.
- I am also an avid runner, getting up to 10kms a week.
- I like to read books of contemporary thought and novels alike, I also watch movies and listen to music, which I enjoy.