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EDUCATION

Integrated M. Tech | Computer Science

International Institute of Information Technology, Bangalore

Aug. 2018 – Present

Bengaluru, India

PROJECTS

CovIntel - An AI based vaccine efficacy tracker

Dec. 2020 – Feb. 2021

Tech Stack: Python, Docker, Azure

CovIntel is a completely modular and scalable AI tracker to determine vaccine efficacy based on the vaccination data with various population parameters. It also helps in identifying which locations in India could tend to become potential CoVID hotspots. The application can also calculate the probable time by which a location could become herd immune.

crypto4.me

Apr. 2021 – present

Tech Stack: Python, Vue JS, MySQL, Docker

crypto4.me is a platform where users can find the top exchanges for a given cryptocurrency, find short summary regarding terms and conditions and compare features of various exchanges. Existing users can add their referrals and new users can use the referrals which could be used to join a given exchange.

Mask Detection using Deep Learning Techniques

Mar. 2021

Tech Stack: Python(OpenCV, PyTorch, Numpy)

Developed a facial mask detection algorithm which was divided into 3 phases.

- Detecting presence of human(s) using YOLO.
- Facial features detection using Viola-Jones Algorithm.
- Mask Detection using ResNet-34.

Beaver - A multipurpose CTFd bot

Dec. 2020 – Present

Tech Stack: Python, Discord API

Beaver is a Discord bot that can be used to check the health of your running CTFd server. It could also be used to update the members of a Discord server on getting first bloods for a given challenge.

Whatsend Plus

Dec. 2020 – Present

Tech Stack: Python

Whatsend Plus is a neat and elegant improvement of Whatsend, a Whatsapp based group creation and message scheduling tool. Using this, an user could automatically add unsaved contacts to a group which could be very helpful in organising various fests, meetings etc.

Product Recommendation using ML - Santander

Aug. 2020 – Dec. 2020

Tech Stack: Python(Numpy, Sci-Kit Learn, Seaborn)

Built a classical Machine Learning model using various Boosting and Decision tree algorithms like XGBoost, Random Forest, LightGBM to predict whether an existing customer of a bank will add or drop a set of products in the upcoming month based on the their past behavior and that of similar customers.

Malware Detection using ML

October 2020

Tech Stack: Python(Numpy, Sci-Kit Learn, Seaborn, Imblearn)

As part of the course project, I had developed an application to detect malware given various details about the computer such as the operating system, processor data etc. The model was developed by stacking and voting on multiple gradient based boosting algorithms.

SAC elections website

August 2020

Tech Stack: Python

Helped in developing the architecture and algorithm to ensure the election goes on to be safe and secure. Utilised hashing algorithms to make sure elections were properly signed by a user and ensured that there are almost no major vulnerabilities in the application.

ACHIEVEMENTS

Finalist, EY Techathon 2021

Dec. 2020 – Feb. 2021

Among the top 6 finalists among 1500 participating teams where we came up with a solution to track the vaccine efficacy.

Top 10, Nationwide Ranking on CTFTIME

October 2020

Our CTF Team Zense ranked 8th best team out of 5964 teams nationwide and 96th best team out of 35978 teams worldwide

CTF Standings

Mar. 2020 – Jan. 2021

1. ISFCR Hackathon - Placed 7/104 organised by PES University
2. CSICTF - Placed 12/1000 organised by VIT Chennai
3. riftCTF - Placed 14/450 organised by IIIT Naya Raipur

Runner Up, EHRC Rx-Smart-Decoder Contest

January 2020

Placed second in the contest, which involved digitisation of physical medical records using NLP.

SKILLS

Programming: Python (Data Science Libraries, Scraping Libraries, Django, Flask), C, C++, OCaml, Rust, Java, SQL

Non Technical: Volatility, Burpsuite, Wireshark, Sony Vegas Pro, Adobe After Effects, Adobe Premiere Pro

Languages: English (C1), Hindi (C1), Telugu (Native), Tamil (B1)

COMMUNITY INVOLVEMENT

Co-Founder & Captain, Zense CTF Team

2020 – present

Started Zense CTF club, where we participate in various Capture the Flag contests which spread awareness about security and bug hunting in various vulnerable applications.

Co-Licensee, TEDxIIITBangalore

2020 – present

Was the Co-Organiser of TEDxIIITBangalore, an annual community event of IIIT Bangalore.

Core Organising Team, iSTEM Hackthon

2018 – 2020

Was in the core organising team of iSTEM Hackathon, an event to motivate STEM research and inclusiveness in the visually impaired community.

INTERESTS & HOBBIES

Computer Security: I am passionate about Computer Security specifically Memory Forensics, Networks and Cryptography.

System Design: I have been fascinated about architectures of various platforms since my freshman year. I have tried my hands on making smaller versions of them for my projects on Azure to help me understand them better.

Video Editing: I had pursued video editing as a hobby and have edited videos for various events in my college such as Infin8, Yamini, iSTEM Hackathon etc.