

SUMMARY

Highly driven Computer Science Engineer seeking opportunities to expedite my knowledge in Deep Learning and Natural Language Processing, and use my adroitness as a developer to democratize AI and enable most of humanity to enjoy its fruits

EDUCATION

- **Fr. Conceicao Rodrigues College of Engineering (Fr. CRCE)**
June-2017 – June 2021
BE CGPA: 9.58
- **Nirmala Memorial Foundation College**
Mar 2015 – Mar 2017
HSC: 82.33%
- **Thakur International School**
March 2014 – March 2015
ICSE: 92.3%

SKILLS

- **Programming Skills** in C, JavaScript, Python, HTML&CSS, TensorFlow, Keras, NLTK, OpenCV, Bootstrap, RASA, Flask & ReactJS
- **Cloud Experience** in AWS & Owncloud
- **Database Experience** in MySQL, PostgreSQL, MongoDB & Neo4J
- **Microservice Experience** in Docker
- **Practical Experience** in Git, REST APIs, IoT, Deep Learning, Natural Language Processing & Image Processing
- **Research Skills** such as technical writing, paper presentation & problem-solving

CERTIFICATION

- **AI for Everyone & Deep Learning Specialization** by deeplearning.ai
- **Machine Learning A-Z: Hands-on Python & R In Data Science** by Udemy
- **Machine Learning and AI using Python** workshop conducted by ATS Learning Solution in association with Microsoft
- **AWS Fundamentals: Going Cloud-Native, & AWS Fundamentals: Building Serverless Applications** by Coursera

EXTRA CO-CURRICULUM

- **Member** of college *technical team Mavericks UAS*, working in the field of *Autonomous Unmanned Aerial Vehicles* from *June 2018 to June 2019*
- Conducted workshops on “*Introduction to Arduino*” and “*Deep Learning*” with *Team Mavericks UAS* at *FR. CRCE*
- **Technical Editor** at *FR. CRCE* magazine “*Fragmag-2018*”
- **Reviewer** for “*2021 2nd International Symposium on Automation, Information and Computing (ISAIC 2021)*”
- Active participation in college-level activities & Social Services

ACHIEVEMENTS

- **5th position** at **India Singapore Hackathon 2019**
- **4th position** at **AI Hackathon 2019**
- **1st position** at **Smart India Hackathon 2019 software edition**
- **Joe Sportsmanship Award** at “**Association for Unmanned Vehicles Systems International Student Unmanned Aerial System Competition 2019**”
- **2nd position** in **Techno Talk 2018** at **FR. CRCE**

EXPERIENCE

- Product Manager / Plexflo LLC** October 2021 – Present
 - Leading strategic and special projects in AI ranging from new product/feature development to strategy creation for critical infrastructure industries
- Co-Founder/Chief Technological Officer | DataCertus Inc.** June 2021 – Present
 - Developing various training and prediction AI/DL/NLP workflows and models respectively for the no-code platform over AWS
 - Responsible for the B2B sales of the product
- Technical Consultant | Emaar farm Technik Pvt. Ltd.** January 2021 – Present
 - Advising the company to incorporate various AI technologies in the domain of Hydroponic Farming and Fodder Machines
 - Guiding to develop an Android application for the fodder machine
- AI Research Intern | Sync Energy Inc.** July 2020 – September 2021
 - Python-Flask based Power Outage API deployed on AWS cloud for extracting power outages statistics when state or county name or Lat/Long are given as inputs
 - Developed Python - RASA based chatbots for the Power Outage API and Power System Simulation Software (GridLAB-D) respectively
 - Utilizing Deep Learning techniques to Identify Utility Poles with Crossarms and Estimate Their Locations from Google Street View Images
 - Created a knowledge graph for specific industrial domain research and published a paper in IEEE for the same
- SDE Intern | Mumbai International Airport Ltd.** June 2019 – July 2019
 - Integration of Airside Safety Management Application {AngularJS and Microsoft SQL Server database-based framework system} with Incident Monitoring System {Microsoft SQL Server database and .net based entity framework}.
 - Integrated Python Payment module with a KIOSK and a PoS Terminal
 - Python-Shell Script for Establishing a communication link between the ATS and the Flight Feed Server

PROJECTS

- Medical Analytica using Blockchain** March 2020 – May 2021
 - A RASA based therapy chat-bot for emotion analysis, storing and tracking Medical Records, tracking user health and analysis of the user’s behaviour
 - Used BigchainDB as a decentralized database to develop an end-to-end system for successful storage, transfer and tracking of patient healthcare data wherein records are encrypted using AES-256 encryption, stored in IPFS and the access for this data is transferred through blockchain and asymmetric cryptography.
- COVID19 Face Mask Detection and Facial Recognition** April 2020 – Aug 2020
 - Built with OpenCV, Keras/TensorFlow using Deep Learning like FaceNet and DeepFace and Computer Vision concepts to detect face masks and recognize the faces in real-time.
 - Used the pre-trained model Keras-OpenFace which is an open-source Keras implementation of the OpenFace for the facial recognition part. Whereas mask detection uses the transfer learning approach using the MobileNetV2 architecture.
- Attentiveness and Attendance Detection Problem** July 2019 – Dec 2019
 - An end-to-end architectural system that incorporates a human pose estimator, emotion recognition and head gaze deep learning models into a customized neural network to generate a prediction of the engagement levels for the students
 - Engagement levels are then plotted onto a dynamic chart to monitor the lesson across lessons and help teachers to find the optimal time to call for breaks.
- Context Classification from Audio Conversations** May 2019 – Oct 2019
 - Uses Google’s “Speech-to-text” to convert the voice clips to text and then uses it as an input for our OpenNMT NLP (Natural Language Processing) model which then carried out the intent classification task.

PUBLICATIONS

- M. Mehra, Vedant Sahai, P. Chowdhury and E. Dsouza, "Home Security System using IOT and AWS Cloud Services" *2019 International Conference on Advances in Computing, Communication and Control (ICAC3)*, Mumbai, India, 2019, pp. 1-6, DOI: 10.1109/ICAC347590.2019.9089839
- S. Kaur, V. Sahai, A. Jaiswal and S. Chanda, "Knowledge Mining for Defining Systemic Engineering Practices," *2020 4th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*, Coimbatore, 2020, pp. 1346-1352, DOI: 10.1109/ICECA49313.2020.9297380.
- Vedant S., Jason D., Mayank S., Mahendra M., Dhananjay K. (2021) Leveraging Deep Learning and IoT for Monitoring COVID19 Safety Guidelines Within College Campus. In: Garg D., Wong K., Sarangapani J., Gupta S.K. (eds) *Advanced Computing. IACC 2020. Communications in Computer and Information Science*, vol 1367. Springer, Singapore. https://doi.org/10.1007/978-981-16-0401-0_3