VEDANT SAHAI

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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 CPGA: 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, PostgresSQL, 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: Migrating to the Cloud & AWS Fundamentals: Building Serverless Applications*** by Coursera
- ***Blockchain A-Z™: Learn How to Build Your First Blockchain*** by Udemy

EXTRA CO-CURRICULUM

- Active participation in college-level activities like Dance, Intra-Tournaments & Social Services
- Conducted workshops on "***Introduction to Arduino***" and "***Deep Learning***" with Team Mavericks UAS at FR. CRCE for the first and third years respectively
- ***Technical Editor*** at FR. CRCE magazine "Fragmag-2018

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 — 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. — June 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}. Also, integrated python module with a KIOSK
- Python-Shell Script for Establishing a communication link between the ATS and the Flight Feed Server

SDE Intern **|** Mavericks UAS Fr. CRCE — June 2018 – June 2019
- Constructed and programmed autonomous hex copter and quadcopter drones with obstacle detection & avoidance, self-navigation and payload handling capabilities

PROJECTS

Medical Analytica using Blockchain — April 2021 - 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 — May 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 — Aug 2019 - Dec 20219
- An end-to-end architectural system that incorporates a human pose estimator, emotion recognition and head gaze deep learning model into a customized neural network to generate a prediction of the engagement levels for the student which is then displayed in a classroom heatmap

Context Classification from Audio Conversations — Jul 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