Mansi Parashar

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EDUCATION

Vellore Institute of Technology, Chennai
CGPA : 9.5

Bachelor of Technology in Computer Science and Engineering — *July 2018 – May 2022*

- University Teaching Assistant - DBMS.

Chettinad Vidyashram
XII : 95.6%

High School Education | School Topper – Biotechnology — *Aug. 2012 – May 2018*

INDUSTRY EXPERIENCE

Software Engineering Intern
05/2021 – 07/2021

NatWest Group (Formerly - Royal Bank of Scotland)

- Envisioned the use of cutting edge technology in the Banking Sector as part of the Future Solutions and Automation team.
- Designed and Developed a Sustainable-Tech project to spearhead a move towards Green Banking.
- Engineered a production level SpringBoot application and onboarded it to non relational database - MongoDB.
- Deployed the application on Pivotal Cloud Foundry for distribution.

Artificial Intelligence intern
05/2020 – 09/2020

B-Aegis Life Sciences & Research

- Developed and delivered a complete working product deployed on Azure using CI/CD pipelines.
- Crafted Machine Learning and Deep Learning Algorithms using TensorFlow framework and integrated them as a Flask web application.

Software Engineering Intern
05/2020 – 07/2020

London Strategy & Consulting Group

- Increased efficiency of the existing product by 80%, and was effectively promoted to team lead.
- Contributed 2k+ lines of code to the Internal Dashboard project and was recognized for distinguished work.

RESEARCH EXPERIENCE

Privacy Preserving Federated Learning
04/2021 – present

A*STAR Research Institute — *Singapore*

- Mentor: Rajagopalan Srinivasan (Research Scientist, Agency for Science, Technology and Research (A*STAR) — A*Star · Data Storage Institute (DSI)), Susan Elias (School of Electronics Engineering, Vellore Institute of Technology, Chennai, India).
- Enhancing performance of Federated Learning for privacy preserving in Distributed Medical Data using PyTorch library for Federated Learning.

Quantification of COVID-19 Chest CT Scans
11/2020 – present

Mayo Clinic College of Medicine — *USA*

- Mentor: Rajagopalan Srinivasan (Assistant Professor, Dept. of Physiology and Biomedical Imaging, Mayo Clinic College of Medicine, USA), Susan Elias (School of Electronics Engineering, Vellore Institute of Technology, Chennai, India).
- Studying 600+ CT volumes of COVID 19 infected patients using tools like ITK Snap and Slicer 3D to extract parameters that can be used to diagnose a patient.

Semantic Segmentation for Plant Phenotyping
05/2020 – 07/2020

Vellore Institute of Technology — *India*

- Mentor: Mattias P. Heinrich Institute of Medical Informatics, University of Lübeck, Germany), Sofana Reka S (School of Electronics Engineering, Vellore Institute of Technology, Chennai, India) and Kumar T. Rajamani (Institute of Medical Informatics, University of Lübeck).
- Experimented and compared efficient Semantic Segmentation methods for Plant Phenotyping of Arabidopsis plants that include Attention mechanisms and U-Nets.

Projects

AI Based Real Time Risk Profiling Application | *Python, Flask, HTML/CSS, Bootstrap, JavaScript,Tensorflow*
- Developed a full-stack web application using with Flask serving Deep Learning predictions to the front end in real time using Flask sockets and deployed on Azure.
- Implemented Convulational Neural Networks for Cough Detection and Face-Mask detection and devised an algorithm for infection risk profiling.
- Visualized risk factor on real time continuous video and audio stream.

VaxHelp - AI Chatbot | *NLP, Azure Bot Services, Python, Bootstrap, JavaScript, Google Map API, Bing Statistics API*
- Developed a ChatBot for answering any queries related to COVID-19 Vaccination drive in India (Covaxin and Covishield).
- Vaccination hesitancy was recorded amongst Indians in 2021. Hence it became imperative to have a single source of verified information to reduce panic.
- Used FAQs scraped from official government sites and WHO to create the Knowledge Base for the Chatbot.
- Deployed the Chatbot on a web application also having the functionality of scouting for nearby hospitals via Google API and COVID statewise statistics via Bing API.

bookAbode - A NodeJS Application | *NodeJS, ExpressJS, MongoDB, Bootstrap, JavaScript*
- Developed a full stack web application for book lovers to share their book recommendations and rate books within their community.
- REST Framework based application with CRUD functionality and Password Hashing for user privacy.

Skills

Languages: Python, C/C++, Java, JavaScript, HTML/CSS, R, Spring
Database and Frameworks: SpringBoot, MongoDB, Node.js, Flask, Tensorflow
Domains: Machine Learning, Deep Learning, Web Development, Copywriting, Data Analytics, Software Development
Others:Git and Github, Technical Documentation, Agile SDLC, Interpersonal Communication

Certifications

Microsoft Certified : Azure AI Fundamentals , AI-900
Microsoft Certified : Azure Fundamentals, AZ-900

Organizations

MICROSOFT – Student Learn Ambassador: Engaged in the global community of Microsoft Ambassadors to empower use of cloud technology.
TEDxVITChennai – Curator: Worked closely with prominent speakers to help deliver TEDx published talks.
IEEE Computer Society – Vice President: Led a team of over 100 members and engaged in workshops, events, and technical competitions.
IEEE Women in Engineering - Joint General Secretary: Encouraged school girls to join STEM through seminars and fairs.
TechnoVIT (Technical Fest) – Event Management Head:Led a team of 35 members to organize 12 Technical workshops and 20+ technical and non technical events.
Google Developers Club: Machine Learning Division
English Literary Association, VIT Chennai: Core Member.

Courses

Version Control with Git, Atlassian
TCS Career Edge Certification,TCS-ION
Virtual SWE, JP Morgan & Co
Virtual Data Analyst,KPMG
Advanced Data Science Specialization,IBM
Deep Learning Specialization,deeplearning.ai
Tensorflow in Practice,deeplearning.ai
Linux for Developers,The Linux Foundation