SujayKumar Reddy M

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Education

Computer Science Engineering with Specialization in DataScience

 $Vellore\ Institute\ of\ Technology,\ Vellore,\ India$

Bachelor of Technology (B. Tech)

Sep 2020 - August 2024

Grade: 8.19

Work experience

Research Intern

May 2023 - July 2023

Advised by Prof Gopakumar G

National Institute of Technology Calicut, India

- One of the 14 selected candidates from 96 applicants for the Internship Provided by the NITIE, PM Gati-Shakti Scheme at NIT Calicut, Pragati on the problem statement of Forecasting the Electricity Demand in the Delhi region through ML applications.
- As PM Gati Shakti introduces the Integration of Ministries, I have taken reports provided by different ministries which generates a dataset and used Time Series Forecasting including feature extraction then to Ridge, Lasso Regression etc... to create some Baseline models.
- Future works will be continued in the aspects of Reinforcement Learning for Model Selection and also inclusion of many ministries which may leads to positive results.

Backend Developer

Kleiba

May 2022 - September 2022 Remote, India

- Provided a Dashboard Interaction to see the Points gained per user in the Mobile Application.
- Researched and analyzed the data of various Psychological habits for a child less than 12 years old to make the product user-friendly.
- REST API for Mobile-Interface Application and integrating Google API for the login criteria and also providing Authentication and Authorization Provision

Projects

Object Detection using Google Earth(GE)

- The objective of this project is to enhance safety and productivity and enable new capabilities in industries such as Drone Delivery techniques and Data Analysis Research.
- GE leverages image processing algorithms, with the current approach utilizing the UNet Segmentation algorithm.
- Built a Web Interface that has Google Maps API on the frontend(React) to map the co-ordinates easily for the prototype and have GE API Engine at the backend(Flask)

Predicted Mean Vote(PMV) and Percentage of Dissatisfaction (PPD) Prediction using Semi-Supervised Algorithms

• This project assesses thermal comfort using algorithms that predict temperature, humidity, and air velocity with SVR and classify thermal sensation levels with semi-supervised algorithms.

• This uses Support Vector Regression (SVR) algorithm to predict PMV and the semi-supervised approach to rate the satisfaction of the humans using ASHRAE-55 Scale.

Electronic Voting System using Blockchain

Prototype

- This project which has already been implemented by the European Parliamentary Council of Research which has an excellent scope of deploying blockchain voting system in India.
- The citizens are mapped towards pre-defined account addresses and uses a network like Arcana which gives the flexibility for the user to interact with the website. An application Industrial IOT which straight away deploys it into the blockchain.
- Frontend using React and Smart contracts which are deployed Alchemy (Goerli) Testnet, this includes all the SDLC phases of Software Engineering including Testing (Mocha and Chai).

Journal Papers

Quantum Cryptography

March 2023

Information Security Management Project

• SujayKumar Reddy, M., Mandal, S., Mohan, C. (2023). Comprehensive Study of BB84, A Quantum Key Distribution Protocol. International Research Journal of Engineering and Technology (IRJET), 10(03), 1023-1034, doi: 10.13140/RG.2.2.31905.28008.

Relevant Coursework

CS Core Courses	Data Structures and Algorithms, Object Oriented Programming, Theory of Computation, Database Management Systems, Operating Systems, Network, and Communication
Specialization Courses	Predictive Analytics, Machine Learning, Data Mining
CS Elective Courses	Information Security, Software Engineering, Internet of Things, Design and Development of Blockchain Applications, Biometrics
EE Courses	Digital Logic and Design, Computer Architecture and Organization

Skills Summary

Programming Languages/Tools	Python, C/C++, JavaScript, SQL, Bash, JAVA	
Frameworks	TensorFlow, Scikit-Learn, PyTorch, ReactJS, Flask, NodeJS	
Developer Tools	IPFS, Mocha, Chai, Truffle, Ganache, Hardhat, Goerli, Ethers, Web3.0, Metamask, Filecoin, GIT, MySQL, MongoDB, Bootstrap, Tailwind CSS, Daisy UI	
Soft Skills	Leadership, Writing, Public Speaking, Time Management	

Extra Curricular Activities

Entrepreneurship Cell VIT	Technical Team Member
IoThinc Club	AI and ML Team
Sports	BasketBall