Abhinav Sreekumar

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EDUCATION

Vellore Institute of Technology	Vellore, Tamil Nadu
Bachelor of Technology in Computer Science. CGPA: 8.34	*2020 – ongoing*
St. Jude's Public School and Junior College	Kotagiri, Tamil Nadu
Indian School Certificate 12th Grade. Percentage: 94.5	*– 2020*
Riverside Public School	Kotagiri, Tamil Nadu
Indian Certificate of Secondary Education 10th Grade. Percentage: 92.8	*– 2018*

EXPERIENCE

Full Stack Machine Learning Intern — February 2022 – April 2023
Systematrix Inc. — *Georgia, Atlanta*

- Trained extensively with Neo4J a graph database for Financial Data to detect fraud and helped maintain and modify the UI used by fraud investigators
- Added Multiple features to the front end D3JS object used to visualise the data such as adding softlinks between nodes disconnected in the database
- Developed a feature which queries MongoDB with all the nodes opened by the investigator and finds all malicious paths in which it is involved as well as storing the paths themselves
- Assisted in tuning hyper parameters of queries to optimally find malicious paths in database
- Developed functions to determine local graph features to add to the fraud detection model such as degree centrality, Page Rank etc.
- Developed and maintained primarily the back end in Django of an app used to confirm a persons identity using face recognition. Modified the server to an nginx server with gunicorn to support SSL for HTTPS requests. Also helped in frontend changes in Flutter

PROJECTS

Harmony | *ReactJS, Node, Express, Python, Flask, Mongoose, Spotify API*

- Scraped 10000 songs each from 42 genres to generate a dataset on Spotify's prebuilt features
- Built a Novel Machine Learning Model to generate a playlist based on the start mood and end mood chosen by the user
- Implemented Spotify OAuth to get custom user data to show their history and to play the playlist on the Harmony Website
- Developed a full-stack web application using React, Node, Express and Mongo for the user to interact

AntiChess AI Bot | *Python, python-chess*

- Developed an AI bot capable of playing Anti-Chess a variant of chess against a user
- Implemented the MinMax Algorithm, Alpha Beta Pruning and Reinforcement training to calculate moves
- Implemented continuous delivery using TravisCI to build the plugin upon new a release
- tuned features enough to make it capable of beating average players with instantaneous response time

Analysis and Visualisation of Indian Crime Data | *Python, plotly*

- Explored Indian Crime Data to discover features worth visualising
- Plotted multiple features of Interest with various graphs such as bubble graphs, Choropleth maps etc.
- Were able to successfully find and convey correlations and other features of interest
- Implemented a simple dashboard for users to navigate through the graphs with ease

TECHNICAL SKILLS

Languages: Python, C/C++, SQL , JavaScript, HTML/CSS, Cypher, Java, Basic Flutter
Frameworks: Django, Bootstrap, Material-UI, Plotly
Developer Tools: Git, Mongoose, Visual Studio Code, Apache Guacamole, Jupyter
Libraries: pandas, NumPy, Matplotlib, python chess