Dhanush Binu

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I am a self-motivated, energetic, and hard-working person. I perform well in a team and can adapt to challenging situations. I am also a perfectionist who strives to achieve maximum efficiency in completing my task. Currently seeking a graduate position in data science/computer vision.

Education

Indian Institute of Information Technology, Kottayam	Aug 2019 - May 2023
Computer Science and Engineering | Bachelor of Technology (Hons.) | CGPA: 8.32	

Delhi Public School Modern Indian School, Doha Qatar	April 2018 - May 2019
Higher Secondary Education | Class XII | Percentage: 88%	

Delhi Public School Modern Indian School, Doha Qatar	April 2016 - May 2017
Secondary Education | Class X | Percentage: 97%	

Work Experience

CleanTech Solar, *Data Analyst Intern*   June 2022 - July 2022

- Co-operated with site engineers to build more than five custom graphs in python and R.
- Updated and maintained the main company database.
- Developed a program to automate modification, addition, and deletion of geographical site information in the database.
- Fixed bugs in the automated email system and handled sudden aberrations in the PV system values.

Tech Reinvented, *Game Development Intern*   June 2021 - Aug 2022

- Developed a unity mobile game with the provided assets and sprites.
- Implemented modifications to the level design and physics system of the game.
- Link : Android Play Store

Publications

Academic Dishonesty Detection in Exams using Pose Extraction	Published
International Conference on Inventive Systems and Control ICISC 2023, Springer	
Conference Date: 31th January 2023	

Advantage Actor-critic reinforcement learning with technical indicators for stock trading decisions	In Preparation

Technical Skills

Languages : Python, C++, C, SQL.
Data Science : Numpy, Pandas, Excel, Sklearn, TensorFlow, PyTorch, Keras, Power BI, OpenCV, Selenium.
Database : SQL, MongoDB.
Web Development : JavaScript, React, Django, Flask.

Research Interest

Machine Learning, Statistics, Reinforcement Learning, Deep Learning, Computer Vision, Big Data Analytics.

Projects

Cheating Detection in Exams using Pose Detection and Machine Learning   Jan 2022 - Ongoing
- Developed a model that detects motion using OpenCV absdiff and threshold function.
- The model performs face recognition and human pose extraction in the form of keypoints, these keypoints are converted to a vector format
- The Vector Format is then passed through an ensemble ExtraTree classifier to classify the video frames accurately.

Automated Stock Trading using advantage actor critic model   Sept 2022 - Ongoing
- Used Advantage actor-critic while considering technical indicators to make stock trading decisions.
- Experimented with different technical indicators.

Crime Trend Prediction and Analysis using Big Data   Aug 2021 - Sept 2022
- A generalized additive model was used to find the general, seasonal, and holiday trends.
- Using the model, we find the trends for multiple parameters present in the dataset.
- The data pipeline was developed with the help of spark and implemented in data bricks.

Quiz Web Application using Django   March 2021 - May 2021
- The web application was built with Django as its backend, while Javascript is used to develop the frontend.
- Designed separate admin and user interface for defining distinct features unique to the admin and user.
- Implemented a basic proctoring system for the web application. For instance, the app will go full-screen mode when attending a quiz.

Covid Tracking App using React   Sept 2020 - Nov 2020
- The app provides statistics related to covid cases globally, for each country, and each state in India with different timelines.
- The app was made using React as its frontend and hosted in firebase.

Volunteer Experience

- Organized online intra-college Esports tournament lasting two weeks.   Nov 2021 - Dec 2021

Conferences/Webinars

- International Conference on Innovative trends in information technology, IIITK, 2019.
- QThursday Webinar Series, IIITK, 2022.

Certifications

- Introduction to Data Science using Python, Coursera
- Database Administrator, Pragmatic Works
- Introduction to Deep Learning with Pytorch, Udacity
- Azure Data Developer, Pragmatic Works