Rakesh Jeyachandran Vinotha

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Education

Stony Brook University Expected graduation: Dec 2024
Masters of Science in Data Science

SSN College of Engineering May 2023
Bachelors in Computer Science and Engineering *GPA: 3.7/4.0*

Skills

Languages: Python, R, C/C++, Java, JavaScript, HTML/CSS

Tools: Tableau, SQL, Excel, Power BI, Tensorflow, Keras, Numpy, Pandas, Git/GitHub, VS Code

Frameworks: Tensorflow, Flask, ReactJS, NodeJS

Projects

Analysis of house sales in King County, Washington | *Tableau*
- Created a comprehensive dashboard for the examination of residential property sales in King County, spanning from 1900 to 2015
- Implemented various filters to assess property values based on factors such as the construction year, dimensions, structural state, and scenic vistas.
- Plotted graphs to analyze the progression of mean property prices over time, the dispersion of price ranges, as well as the distribution of bedrooms and bathrooms.

Estimating Severity of Knee Osteoarthritis Using Deep Convolution Networks From X-ray Images | *Tensorflow*
- Developed an ensemble of neural network models capable of categorizing X-ray images according to the degree of osteoarthritis
- CNN used: EfficientNet, DenseNet, InceptionV3, Mobilenet
- Developed the dataset - Manually created image Image masks for the X-ray images to perform segmentation
- The area of injury is segmented out of the image and the distance between the knee bones is calculated
- Calculating the distance plays a vital role in assessing the disease's seriousness and predicting the probability of progressing to the next stage.
- Facilitates doctors and medical laboratory assistants in diagnosing diseases more efficiently and swiftly compared to manual methods, while also aiding in the precise assessment of the extent of injury.

FIFA 23 Video Game players analysis | *Tableau*
- Prepared a dashboard to analyze potentials and market value of players in the game FIFA 23
- Employed filters to evaluate players according to their age, preferred position, and market value
- Enables gamers to analyze players in depth to choose the one that suits best their style of game

University Admit Eligibility Predictor | *Python, Numpy, Pandas, Keras, Scikit-learn, Flask*
- Developed a Machine Learning model that forecasts the likelihood of university admission acceptance percentages considering the academic stats.
- It is also transformed into a web application utilizing the Flask framework.

Research Paper Publication System | *ReactJS, NodeJS, MongoDB*
- A web application to publish research papers.
- Used ReactJS for front-end development, NodeJS for back-end purposes, and the data management is done with MongoDB.

Certified courses

- Getting started with competitive programming via IIT from NPTEL.
- Introduction to Data Analytics on AWS via Coursera.
- Design and Implementation of Human-Computer Interfaces via IIT from NPTEL
- Programming in modern C++ via IIT from NPTEL