MANI DEEP CHERUKURI

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🔗 https://github.com/manideep1999   🌐 https://manideep1999.github.io   in www.linkedin.com/in/manideepcherukuri1999/

SKILLS

- **Programming Languages :** Python, Java, C++, SQL, R, Php, JavaScript
- **Frameworks :** Tensorflow, PyTorch, Keras, SciKit-Learn, NLTK, Spring, SpringBoot, Hibernate, NodeJS
- **Tools :** MySQL workbench, GIT, VS Code, Jupyter Notebook, Eclipse, RStudio
- **Platform :** Windows, Linux, Web, AWS, Arduino, Raspberry
- **Soft Skills :** Leadership, TeamWork, Adaptability, Time Management, Problem Solving

EDUCATION

MS in Robotics - University of Minnesota

📅 Sept 2022 – Present

Courses: Artificial Intelligence, Machine Learning, Data Mining

B.Tech in Electronics & Communication Eng. - MIT, MAHE

📅 Aug 2016 – Aug 2020

CGPA: 7.25   *Minor: Data Science Specialization*

PROJECTS

Transfer Learning on Atari Games using DQN

- Studied transfer learning techniques and conducted research on various state of art training algorithms which include DQN, DDQN and A2C for transferring the knowledge from parent game to child game.

SLAM Architecture implementation

- Using the FSOCO Dataset for visual Perception, LiDAR and stereo camera pipeline was implemented to locate the colored cones on the track to generate a 3D map of the cones to predict the vehicle future state.

SoC Estimation using Back propagating Neural Network

- As the State of Charge could not be calculated directly, a neural net was modelled to estimate the SoC from known parameters such as voltage, current and temperature.

Optical Character Recognition to read the page numbers from Uploaded Documents

- Developed APIs to read the page number of the uploaded handwritten documents by candidates using Optical Character Recognition with pytesseract.

PUBLICATIONS

Battery Management System Design for Electric Vehicle, IEEE DISCOVER 2019

- Designed a Battery monitoring system with the purpose of logging and building telemetry applications. The work was later extended to predict the State of Charge (SoC) with the help of neural networks. Link

WORK EXPERIENCE

MeritTrac Services Pvt. Ltd.
Senior Software Development Engineer

📅 Apr 2021 - Aug 2022   📍 Bangalore,India

AI-based Remote Proctoring System

- Developed the first version of the AI-based face and action tracking system using Computer vision techniques to monitor the live candidates.
- Constructed a scalable CNN model with TensorFlow and APIs to calculate the similarity score based on the cosine distance between the base face and the live exam face embeddings in order to give the required cautions when the candidate is cheating.
- This feature increased the system's overall security, luring more clients and boosting sales by around 10%.

Computerized Adaptive Question Generation System

- Build a new ML framework to incorporate the Adaptive Question Picking feature, which uses the Naive Bayes Classifier to deliver a more precise and accurate evaluation by adaptively choosing items that correspond to the person's level of ability based on the results of the prior sets.
- Often deployed in high-stakes environments, such as licensing and certification exams, where it is important to accurately assess the abilities of individuals.
- Took part in the testing and infra setup of different centralized and distributed Linux/windows servers on AWS.

My work altogether generated an incremental revenue of more than 1 million dollars and played a pivotal role in achieving annual team goal

UNext Learning Pvt. Ltd.
Software Development Engineer

📅 Jul 2020 - Mar 2021   📍 Bangalore,India

- Designed the database schema, worked on the back-end logic, and made contributions to the web application development of complex algorithms including score calculation and question paper generation for a range of question types.
- Led technical discussions with multi-disciplinary teams of engineers, designers, and clients on a daily basis to design and develop the system architecture.
- Built REST APIs to obtain the user's requested information, parse the result, and fill the views using a range of languages, platforms, frameworks, and content management systems, including Java, Spring, SpringBoot, Hibernate, PHP, and MySQL.

Formula Manipal
Controls System Technical Lead

📅 Feb 2017 - Jan 2020   📍 Manipal,India

- Actively participated in the research and development of the first Formula Student electric and driverless cars to compete in major international FSAE tournaments.
- Led the Data Acquisition Team by implementing numerous shell scripts to build GUI applications for telemetry and data logging with the Beagle Bone Black Controller