SOFTWARE DEVELOPER

(Data science and Machine Learning)

Highly driven Software developer who is experienced in designing, developing and maintaining software systems. Strongly willing to tackle modern problems by integrating Machine learning and Deep Learning. Proficient in various programming languages such as C++ and python. Demonstrating strong problem solving abilities, attention to detail and innovative thinking in creating efficient software solutions. Ability to use versatile coding skills to make resourceful software in modern programming languages. Added experience on handling python and Machine learning libraries will fuel conventional software development. Able to deliver clean coding practices along with data structures and algorithms, both compiled and interpreted languages. I'm motivated to be a part of the organization, where I can contribute to the growth of the institution by further honing my problem solving and coding skills.

SKILLS

- Python Programming
- Fastapi
- TensorFlow
- SQL-Stored proc
- Image Processing
- ANNs and CNNs
- Scikit-learn
- Polars-pandas

- Data Science Theory
- Natural Language Processing
- CPF

EXPERIENCES

Freelance Al Developer

Dec 2023 - Present

self-employed

Developed multiple modules for logistics and Supply chain software

- improved performance and maintainability by transitioning multiple financial forecasting modules of a Data driven project from polars/pandas to Database.
- Performed cleaning and Extraction of data for efficient joining and filtering.
- Analyzed and prepared retail data using various data analysis techniques.
- Used WebSocket protocols to stream cleaned data, enhancing the application's responsiveness and user experience.
- Automated the communication of modules via triggers.
- Reduced the processing time through strategic indexing and decreased memory consumption from 100 to 30GB.

Advanced table detection in invoices

- Aided a client to get the information from the invoices by precisely identifying the positions of the tables from the invoices.
- Extracted the texts from the table.
- Recreated tabula algorithm in python to retrieve the information from invoices.

Luminar technolab

Chatbot using NLTK toolkit

- The JSON dataset is used to train the model which contains artificial neural networks for prediction.
- General Bag of Words for vectorisation is employed to decode the word-tag and reply context.
- Trained a chatbot using python and keras framework A chatbot that instructs people on mental health and provides support for them.

Developed a Deep learning model to predict the user activity from wearable devices

- Trained a model in keras to detect activity of the wearable device, based on the previous data.
- Stoichiometric Gradient Descent algorithm is utilized for the optimisation of the model.
- The model is designed based on the Neural network from scratch(nnfs) framework and composes a dense layer, ReLU and SoftMax activation functions, and also categorical-cross entropy as the loss function for multi-class classification.

Anomaly detection in Unbalanced dataset

- Created a Deep neural network using ANN with keras and pandas' frameworks on an irregular dataset
- The model identified oddity in the dataset.
- Able to oversample fraud data points as many as against overfitting.

Deployed real-time object measurement system

- Successfully installed an object detection system that captures the images from the frames and then converts them into canny edge images.
- System then identifies the image using bounding boxes drawn along the edges of the outer parent image and inner child image. Referencing both values the exact value of the image is detected.
- Parent object is white plane paper. Child object is to be measured.
- Effectively Measured the dimensions of the object by comparing edges to white background.

Customer Service Executive

Jun 2021 - Jan 2022

Oxygen digital Expert

- Provided customers with well-structured guidance and product insights
- Updating the company database with buyer's data, contact details, product service information.
- Help close sales and automate service bills.
- Gathered customer feedback and routed advanced enquiries to higher departments.

Hardware Engineer Intern

Dec 2020 - Mar 2021

Inet Infotech

- Test, evaluate, and ensure hardware systems work as desired as performance requirements.

- Optimized hardware for programming needs.
- Troubleshooting solid state storage devices & legacy computer systems.

Census Enumerator

Oct 2019 - Mar 2020

MoSPI, Govt. of India

- Organized data from designated households and individuals under the management District level Coordinator

EDUCATION

Bachelor of technology, Mechanical Engineering

June 2014 - May 2018

St. Joseph's college of engineering and technology, Pala, Kottayam, Kerala

Certification and Training

Specialization in Big Data and Machine Learning

Sept 2022 - Present

LUMINAR TECHNOLAB, Kochi

Specialization, Hardware Engineering

Jun 2020 - Nov 2020

I-net- Info-tech, Ernakulam north

C++ certification Nov 2016 - Jan 2017

Mannam institute of Computer technology (MICT), Palai, Kottayam, Kerala