Scorobete Cozmina-Denisa

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Skills

Programming & Software Development: Python, C, C++, Java, SQL, Flask, Git, Object-Oriented Programming (OOP), Agile Development

Machine Learning & AI: Scikit-learn, TensorFlow, PyTorch, Keras, OpenCV, Deep Learning, Data Reprocessing, Feature Engineering

Data & Analysis: Pandas, NumPy, Data Visualization (Matplotlib), SQL, Big Data

Experience

Software Developer, Continental Automotive Romania – Timisoara, Romania

November 2022 - Present

- Software development for Renault Instrument Cluster projects, using C programming language, Matlab Simulink for model-based implementations and code generation.
- Working on an AUTOSAR based project, I am maintaining Complex Device Drivers, Software Components and RTE connections using Cessar.
- I use tools such as Source Tree and GIT-Hub for software version control and DOORS for requirement specification documents.
- I work in a team following the agile methodologies.

Projects

Hand Gesture Recognition Web App

github.com/CozminaScorobete

- Developed a web application for hands-free interaction using MediaPipe and machine learning, achieving high accuracy in real-time gesture recognition.
- Implemented a deep learning model with TensorFlow to classify hand gestures, enhancing accessibility for users with motor disabilities.
- Integrated Flask, HTML, CSS, and JavaScript to create an intuitive web interface for academic accessibility.

Anomalies in Stock Markets Using Unsupervised Learning

github.com/CozminaScorobete

- Developed an unsupervised learning model using LSTM-based autoencoders to detect anomalies in financial markets.
- Implemented and compared synthetic data generation techniques (Lorenz Attractor & Van der Pol) to improve model accuracy.
- Utilized TensorFlow, Keras, and yFinance to process stock market data and evaluate anomaly detection performance.

Report Anomaly detection using Autoenders and Methods to Improve them github.com/CozminaScorobete

- Explored the intersection of Explainable AI (XAI) and anomaly detection by implementing SHAP-enhanced autoencoder models for network security.
- Conducted comparative analysis of various anomaly detection techniques, including LSTM-based autoencoders and Robust Deep Autoencoders.
- Implemented and tested machine learning models using Python, TensorFlow, and SHAP, evaluating performance on large-scale cybersecurity datasets.it

Education

West University of Timișoara – MS in Artificial Intelligence and Distributed Computing West University of Timișoara – BS in Computer Science

Present June 2024

