Jordan Manoj

AI & Data Science Engineer

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Profile

Adept at problem-solving, data analysis, and developing innovative solutions. Passionate about leveraging AI technologies to solve real-world challenges and eager to contribute to cutting-edge projects in artificial intelligence, software development, and data science. Collaborative team player with a drive for continuous learning and improvement.

ACADEMICS

✓ B. Tech Artificial Intelligence & Data Science (2021-2025)

Application Languages / Tools

- **Python, PyTorch, Java, C++, jQuery**
- **ReactJs, Node.Js,**
- **Angular, HTML**
- **SQL, Tensor Flow, API**
- **Power BI**

Skills

- **Artificial Intelligence, Neural Networks**
- **Machine Learning, Deep Learning, NLP.**
- **Data Encryption / Decryption, Database Normalization**
- **Agile Methodology**

Professional Profile

Github: https://github.com/JordanManoj

LinkedIn: https://www.linkedin.com/in/jordan-manoj-096a8a225/

Certifications

- ***Google***: Foundations of User Experience (UX) Design, Google advanced data analytics (6 certificates), Google Advanced Data Analytics Capstone

- ***Microsoft***: Power BI, Preparing Data for Analysis with Microsoft Excel, Azure Fundamentals Microsoft Power BI Data Analyst Professional Certificate
- ***IBM***: Getting Started with Enterprise-grade AI, Tools for data Science, Data Science Methodology
- ***Cisco***: Introduction to Packet Tracer, Cloud security
- ***Data Analysis:*** Data analysis with python, Deep learning fundamentals, Python 101 for Data Science, Data Visualization with Python. The Nuts and Bolts of Machine Learning, Foundations of Data Science, Regression Analysis: Simplify Complex Data Relationships, Go Beyond the Numbers: Translate Data into Insights, The Power of Statistics, TensorFlow Developer
- ***Open EDG:*** PCAP: Programming Essentials in Python
- ***Internshala:*** Data Management and Analysis with MS Excel, Introduction to Data Analytics, Data Visualization with Power BI, Python Data Preparation & Analysis, SQL for Data Analysis and Insights

Academic Projects

1. SPINAL MONITORING BELT

Description*:*

- ✓ Wearable spinal monitoring belt with sensors for real-time tracking of bend angle, strain, and pressure.
- ✓ Integrated Android/iOS app for data analysis and personalized exercise routines, enhancing patient and doctor communication.
- ✓ Innovated treatment feature using implanted devices for pain management and corrective impulses, aiding recovery.

Skills Applied*:* Python, C++, Java,Node.Js, Angular, Flask, API

2. SIMPLE CONVERTOR

Description*:*

- ✓ Engineered FileConverter with Tkinter GUI and TensorFlow integration for versatile file conversion (text, image, PDF), highlighting proficiency in machine learning and data science. Implemented conversion methods demonstrating strong data processing skills.
- ✓ User-friendly interface with interactive widgets for seamless operation, showcasing expertise in front-end development alongside advanced machine learning techniques.
- ✓ Encryption & Decryption Artificial Intelligence Machine Learning Neural Networks API Database Normalization.

Skills Applied*:* FPDF, PIL, Python, Java, TensorFlow, C++, HTML, Agile Methodology

3. Intelligent Disease Detection System

Description:

- ✓ Machine learning-based disease identification system, achieving high accuracy for diabetes, Parkinson's, breast cancer, and heart disease from user input.
- ✓ Advanced data pre-processing, feature engineering, and model evaluation techniques to optimize disease detection performance, demonstrating expertise in data science practices.

Skills Applied: FPDF, PIL, Python, Java, TensorFlow, C++, HTML, Agile Methodology

4. Advanced Insights into Breast Cancer Analysis in Histopathology Images

Description:

- ✓ Developed and evaluate a deep learning- based approach for automated breast cancer classification in histopathological images to assist pathologists and improve the accuracy of diagnosis.
- ✓ Developed a Deep Learning Model, Improve Early Detection, Enhance Image Processing
- ✓ To develop a dual-stream high-order network (DsHoNet) to improve the classification accuracy of breast cancer histopathology images
- ✓ Differentiate among four computer vision tasks using deep learning techniques on radiologic images: classification, detection, semantic segmentation, and instance segmentation. Identify building blocks that constitute components of more complex neural network architectures.
- ✓ To address the challenges and ethical considerations in applying deep learning models in clinical settings
- ✓ To propose a deep convolutional neural network (CNN) based approach for automated breast cancer detection and classification in histopathological images

Skills Applied: Python, TensorFlow/Keras , PyTorch, OpenCV , scikit-image, Optuna, Pandas and NumPy, Matplotlib, Seaborn, and Plotly, LIME , SHAP

5. Web-Whisperer

Description:

- ✓ Developed a Python-based web scraping tool capable of crawling websites and extracting textual content.
- ✓ Implemented automated parsing of subpages with BeautifulSoup and requests library
- ✓ Structured extracted data into markdown reports for downstream NLP analysis.
- ✓ Enhanced data sourcing efficiency for machine learning pipelines and research tasks.

***Skills Applied*:** Python, BeautifulSoup, Requests, Pandas, Markdown Processing

6. Speech-Detection-A-Comparative-Study-of-Naive-Bayes-and-BERT-Models

Description:

- ✓ Conducted a comparative study on toxic speech detection using both classical machine learning and deep learning approaches.
- ✓ Implemented Naive Bayes classifier with TF-IDF features as a baseline model.
- ✓ Fine-tuned a BERT transformer model for sequence classification to achieve state-of-the-art results.
- ✓ Evaluated and compared both approaches using accuracy, F1-score, and confusion matrices.

Skills Applied: Python, Transformers (Hugging Face), PyTorch, Scikit-learn, Pandas, NumPy

7. Rating-Based-Sentiment-Analysis

Description:

- ✓ Developed a sentiment classification system using customer product ratings to categorize text into positive, negative, and neutral sentiments.
- ✓ Implemented NLP preprocessing (tokenization, stopword removal, lemmatization) for clean input.
- ✓ Applied machine learning models with visualization of sentiment distribution for better interpretability.
- ✓ Improved accuracy through hyperparameter tuning and evaluation metrics such as F1-score and precision/recall.

***Skills Applied*:** Python, Scikit-learn, NLTK, Pandas, Matplotlib, Seaborn

Research Publications

- ✓ **Jordan Manoj Cheruvathoor** *Advanced Ensemble Learning and Feature Enhancement for Robust Breast Cancer Classification in Histopathological Images*. In **Proceedings of the International Conference on Data Science, Artificial Intelligence & Applications (ICDSAAI 2025)**, **Paper ID:** F-ICDSAAI-V3-25-1026, **Year:** 2025.