Hamed Nasr

Google Certified Deep Learning TensorFlow Developer
Deep Learning, Machine Learning Engineer

As a skilled practitioner of deep learning and machine learning, backed by a solid mathematical background, I have extensive experience using cutting-edge DI/ML frameworks such as TensorFlow, TensorFlow.js, TensorFlow Lite, PyTorch, Scikit-learn, Pandas, Docker, Transformers, Langchain and data analysis and visualization tools such as Pandas, Matplotlib, Seaborn, Plotly, etc. My knowledge spans over 40 AWS services, prompt engineering for language models, and Blockchain, Solidity, and Smart Contract development.

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AREAS OF EXPERTISE AND SKILLS

Programming	Python JavaScript Solidity SQL MATLAB C++ HTML Pascal
Machine Learning Deep Learning	Scikit-Learn TensorFlow PyTorch Tensorboard RapidMiner OpenCV
DL/ML in JavaScript	TensorFlow.js in the Browser
DL/ML on Edge Devices	TensorFlow Lite for Android, iOS, Microcontrollers, Raspberry pi
Cloud DL/ML, AWS Services	AWS SageMaker Data Wrangler Autopilot Canvas Ground Truth,...
Model Web App & Deployment	Streamlit Heroku Docker
Data Visualization	Matplotlib Seaborn Pandas Plotly Tableau Power BI RapidMiner
Data Analysis	Numpy Pandas MySQL SciPy RapidMiner Tableau Power BI
Business Intelligence	Tableau Power BI
Blockchain Web3 Smart Contract	JavaScript Solidity Hardhat Ethers.js Web3.js Ganache HTML
Transformers	Theory of transformers: self attention, multi head attention, etc. Implementing transformers using Hugging Face library. Implementing Transformers using PyTorch or TensorFlow.

CERTIFICATES

TensorFlow Developer Certificate by Google Check Credential here , check my name in certified google developers here
ChatGPT, Generative AI, Prompt Engineering Check Credential here
ChatGPT for Programmers: Build Python Apps in Seconds Check Credential here
Ultimate AWS Certified Cloud Practitioner Check Credential here
Advanced SQL: MySQL for Ecommerce & Web Analytics Check Credential here
DevOps , CI/CD (Continuous Integration/Delivery for Beginners Check Credential here

PROJECT PORTFOLIO and WORK EXPERIENCE

Project Planner, Controller, Data Visualizer and Data Analyst at Danial Petro 2016 - 2018

Transformers, LLMs, Langchain, NLP:

Travel Recommender App via Langchain and Google Palm LLM. App link
Chat and Conversation with PDF Documents. App link
Internet Documents Research Tool, Chat with Docs. App link
Question-Answering ChatBot with CSV Database. App link
Implementing Encoder-Decoder Seq2Seq Transformer (translation). My own Language Model. PyTorch Code
Implementing Decoder Transformer (GPT) . PyTorch Code
Implementing Encoder Transformer for classification. PyTorch Code
Fine-tuning Hugging Face Transformer for Machine Translation. Code
Fine-tuning Hugging Face Transformer for Sentiment Analysis. Code
Text Summarization and Translation using Hugging Face Python library. Code
Classify Abstract of a Paper into Different Sections: Divide abstract of the paper into sections for easy reading. TensorFlow Code
Analyzing Tweets: A Kaggle Competition in NLP. TensorFlow Code
Sentiment Analysis, Text Generation, Masked Language Modeling, Named Entity Recognition (NER) in HuggingFace Library

Computer Vision Deep Learning Projects:

Plant Disease Detection: An Image of the leaf of the plant is given to the model and it detects the possible disease of the plant. Tensor-Flow Code . A web app was created and deployed on Streamlit Cloud, check here

Body Movement Detection: This project was done for a game development studio with TensorFlow to recognize human body actions. TensorFlow Code , I uploaded 3 demo videos of the project on YouTube, check here.

101 Food Image Classification: TensorFlow Functional API and EfficientNetB0 Transfer learning. TensorFlow Code

CNN - Autoencoder for image compression. PyTorch Code —- ***Generative Adversarial Networks (GANs) for FMNIST:*** PyTorch Code

Clothing Items Classification: PyTorch Code , TensorFlow Code —- ***Traffic Signs Classification:*** TensorFlow Code

AWS ML Projects(python SDK, Autopilot, Canvas, Data Wrangler, EC2 Linux):

Predicting S&P 500 Price Prediction via AWS Autopilot — Life Expectancy Prediction using AWS Sagemaker

Predicting Cardiovascular Disease using AWS Sagemaker — Semantic Segmentation and labeling Images with AWS GroundTruth

Data Analysis, Processing and Visualization with Data Wrangler — EC2 Linux and Windows Servers Configuration and Launch

Regression & Time Series Deep Learning Projects:

Bitcoin Price Prediction: Bitcoin price is predicted using different methods including TensorFlow. TensorFlow code

Missing Data Interpolation: Problem of missing data in a dataset is addressed with a creative method. PyTorch Code

Wine Sugar Prediction: This is a dataset in UC Irvine Machine Learning Repository. The residual sugar is predicted. PyTorch Code

Car Purchase Amount: TensorFlow Code , ***Crime Rate Prediction:*** Code , ***Price Prediction:*** Code

Other Deep Learning Projects:

Predicting Heart Disease: It is a binary classification problem, with 13 attributes. model predicts the possible disease. PyTorch Code

Deep Learning Calculator: This is a Neural network calculator for addition. Other operations can be built similarly. PyTorch Code

Traditional Machine Learning, Data Analysis and SQL Projects:

Detecting and Predicting DDoS Attacks: Predicting DDoS attacks using k-NN, SVM, Logistic Regression, Random Forest, AdaBoost, ANN, CNN, and Gaussian Naïve Bayesian. Code

Breast Cancer Prediction: Code

Explanatory Data Analysis of Athletes in Olympic Games Code

SQL Database Analysis: Extract and analyze website traffic and performance data from database. Code

Yelp Reviews Sentiment Analysis: Code

Email Spam Detection : Code

Predicting Destination of Bicycle riders in Montreal (Rapidminer)

Olympic Medals Data Analysis Code

Explanatory Data Analysis of Athletes in Olympic Games Code

Blockchain, Solidity, Smart Contract Projects

Fundraising Dapp on the Blockchain: Frontend , Backend. ***Lottery Smart Contract:*** Code ***ICO (Initial Coin Offering):*** Code

EDUCATION

Master of Engineering Concordia University *(2019-2021) GPA: 3.70*

• Machine Learning (A-) • Big Data for Smart City (A) • Building Information Modeling (A-) • Project Management (A)

Master of Project Management

• Project Management • Program Management • Portfolio Management • Financial Management • Strategic Management

• Human Resource Management • Organizational Theory

Bachelor of Engineering

•Fundamentals of Computer Programming •Theory of Probability and Its Applications •Engineering Statistics

•Numerical Computations •Operations Research (Linear Programming) •Operations Research (Non-Linear Programming)

•Principles of Simulation •Statistical Quality Control •Fundamentals of Electrical Engineering •Engineering Economics

Other Courses ZTM Academy, Udemy *(2019-present)*

•Deep Understanding of Deep Learning and PyTorch •TensorFlow Developer Certificate Preparation •Computer Vision with Python•

LANGUAGES

- **English:** Full Professional Proficiency IELTS: 7.5 GRE: 311 **French:** Elementary

* For my publications and more information, please check my website: www.hamednasr.com