Thomas C. Mason

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A highly motivated and passionate Computer scientist specialised in the area of Artificial Intelligence with one year's experience working as a Machine Learning Engineer. Excellent performance in projects with competence in building, training and testing of Deep Learning algorithms. Looking to further my position in the AI movement and be part of technological advancement.

Experience

Machine Learning Engineer

Cerno Health

09/2021 - 12/2022

- Successfully developed, implemented, and tested the nocturnal sleep and nap detection algorithms with machine learning.
- Achieved over 4x better accuracy performance in sleep detection compared to the previous solution.
- Analysed signal data including heartrate and accelerometer signals using Python, AWS, Numpy, Pandas and Matplotlib.
- Effectively utilised data in a cloud environment AWS, using various cloud services; S3, DynamoDB and Lambda.
- Leveraged hyperparameter tuning to optimize network configuration and maximize algorithm performance.
- Developed a data pre-processing and cleaning pipeline to effectively clean and transform data into suitable format.
- Presented data reports and data visualizations to explain algorithm work and analysis to non-technical audiences.
- Monitored and tracked the data trial and ensured high quality data throughout data collection.
- Researched and implemented state-of-the-art literature during development and used advanced feature engineering.

Money Exchanger Post Office 03/2015 - 04/2019

- Working in the travel bureau; exchanging a wide range of currencies, issuing travel cards and insurance.
- Provided additional services including passport notarisation, document verification and processing parcels.
- · Helped train and induct new colleagues into their new roles. Honed my customer service skills.

Education

Master's Queen Mary, University of London

09/2020 - 10/2021

- MSc in Artificial Intelligence, October 2021, Grade: Distinction, 73%.
- Modules: Artificial Intelligence, Bayesian Decision and Risk Analysis, Data Mining, Machine Learning, Machine Learning for Visual Data Analysis, Music Informatics, Neural Networks and Natural Language Processing.

Bachelor's Goldsmiths, University of London 09/2017 - 08/2020

- BSc in Computer Science, August 2020, Grade: First Class Honours, 80%.
- Modules: Algorithms and Data Structures, Databases and the Web, Data Mining, Machine Learning, Mathematical Modelling for Problem Solving, Neural Networks, Principles & Applications of Programming, Web Development.

Projects

- Automatic detection of sleep micro-events with Convolutional Recurrent Neural Networks (2021).

 Implemented and employed a CRNN model architecture, able to successfully identify sleep micro-events.
- Cryptocurrency forecasting using Recurrent Neural Networks on historical price data (2020). Application to predict future prices and trends of cryptocurrencies exploring RNN's, GRU's and LSTM's.
- Fitness mobile application 'EasyFit' to monitor a user's cardio exercise (2019).

 Team project designing and building an ios application to track fitness with user-tailored route generation.

Skills

Data science: Machine learning, Artificial Intelligence, Signal processing, Data analytics, Data mining, Data visualization, Deep learning, Neural Networks, Natural Language Processing, Error analysis, Hyperparameter optimization. **Programming:** Python, Java, JavaScript, MATLAB, VB, R, Swift, Bash. **Frameworks:** Tensorflow, Keras, Scikit, PyTorch. **Libraries:** Numpy, Pandas, Matplotlib, Librosa. **Web & database:** HTML, CSS, jQuery, SQL, PySpark, MongoDB. **Tech:** GIT, AWS, LaTeX, Colab, Jupyter, Conda, Pip, Microsoft Office (Access, Excel, PowerPoint, Word).

Certificates

- DeepLearning.AI: Convolutional Neural Networks (2023).
- DeepLearning.AI: Sequence Models (2022).
- DeepLearning.AI: Introduction to Machine Learning in Production (2022).

Hobbies