Osamudiame Joshua Uwaifo

o.j.uwaifo@gmail.com | (+44) 7944 650 457
Citizenships: American, British and Nigerian

EXPERIENCE

MOVE AI | Computer Vision Engineer — Jan 2020 - Current

- Build augmented reality python prototypes using python and C++
- Augmented reality prototypes involved estimating the homography in a 2D match-move framework
- Tested different settings like optical flow for video analysis, image blending, feature detection and description as well as other image processing techniques
- Experimented with HomographyNet in my spare time as a possible extension
- Relevant libraries for the AR product were OpenCV (Python/C++), NumPy and Boost for C++ testing
- VRAD, the newly completed AR product, ensured Move.ai completed the requirements from the InnovateUK grant
- Served as a front-end and bit of back-end web developer building features in Python, JavaScript and more for a django-based markerless motion capture webapp called aim

IKON SCIENCE | Machine Learning (ML) Research Engineer — Jan 2019 - Dec 2019

- 3D Image segmentation posed directly as a 3D and 2D problem using U-Net like Architectures (paper published see Publications: Deep Learning for Salt Body Detection)
- Implement, test and review Supervised and Unsupervised learning modules added to Ikon's RokDoc software, including variants of Multi-task learning and AutoML models
- Implement and evaluate experiments and publish 2 Deep Learning papers on Automated Machine Learning and Image Segmentation using U-net respectively (see Google Scholar: Joshua Uwaifo)

UNIVERSITY OF EDINBURGH | ML Tutor and Teaching Assistant — Feb 2018 - Dec 2018

- Available on Request.

EARLYBIRD VENTURE CAPITAL (EVC) | Data Science Consultant — Sep 2017 - Mar 2018

- Available on Request.

CLEVELAND CLINIC ABU DHABI (CCAD) | Data Science Intern — Aug 2016 - Sep 2016

- Available on Request.

PERSONAL DEVELOPMENT | Machine Learning Related — Aug 2016 - Present

- Multi-task and single-task variants of Fully Connected Networks and Convolutional Neural Networks applied to Kaggle's Painter by Number dataset with some transfer learning used as well
- Facial Keypoint Detection in 2D and Projected in 3D using Face-alignment
- Image Classification on a in-house Kaggle Competition which I came in first place on a task where ConvNet architectures were restricted
- Creating (Convolutional) Neural Networks from scratch using only NumPy and SciPy for a University Module
- Grad-CAM class activation visualization for exploration purposes to better explain the ConvNet architectures used
- Rooftop segmentation of Satellite Imagery (8-bands) on an imbalanced dataset
- Experimenting, debugging, analysing and rewriting the code for ML-based resources like https://keras.io/examples/

EDUCATION

UNIVERSITY OF EDINBURGH | Artificial Intelligence MSc | Distinction — Sep 2017 - Aug 2018
Machine Learning Practical Introductory Applied Machine Learning

UNIVERSITY OF WARWICK | Discrete Mathematics BSc | 2.1 — Oct 2014 - Jul 2017
Machine Learning Digital Communications and Signal Processing

RESEARCH

POSTGRADUATE | Recommender Systems — Jan 2018 - Aug 2018

- Analysed different multi-task and single-task neural nets
- Task focused on reducing the model complexity and learning effective embeddings
- Implemented over 150 different prototypes using MovieLens and Jester datasets
- The neural net simultaneously reconstructed its input and produced a user-item rating

UNDERGRADUATE | ML for football transfer decisions — Mar 2016 - Mar 2017

- Implemented algorithms to suggesting transfer decisions Premier League teams could make between 2006 and 2016
- Scraped data using command line tools data from different sources
- Investigated impact of player statistics on the prize money teams generate at the end of a Premier League season
- Achieve a generalisation score of 0.94 R^2

PUBLICATIONS

2020

- Deep Learning for Salt Body Detection: A Practical Approach
  EZ Naeini, BP Consolvo, P Docherty, J Uwaifo
  82nd EAGE Annual Conference Exhibition 2020 (1), 1-5

2019

- Transfer learning and Auto-ML: A geoscience perspective.
  EZ Naeini, J Uwaifo
  First Break 37 (9), 65-71

PROGRAMMING LANGUAGES (RELEVANT LIBRARIES)

- Python: NumPy, SciPy, Sklearn, Tensorflow/Keras, OpenCV, Pillow, Skimage, Pandas
- JavaScript: JQuery
- C++: OpenCV

USEFUL TOOLS

- GitKraken, Blender, Ffmpeg, PyCharm, CLion, Google Colab (GCP), AWS Console

ONLINE PRESENCE

- LinkedIn: https://www.linkedin.com/in/ojuwaifo/
- GitHub: https://github.com/joshuwaifo
- Google Scholar: https://scholar.google.com/citations?user=0hQob54AAAAJhl=en,