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Kai Mumford

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EDUCATION

DE MONTFORT UNIVERSITY

BSc in Digital and Technology Solutions
Sept 2018 - May 2022 | Leicester, UK
Grade: 1st Class Honours
Dissertation Title: Interpreting Neural Networks by Identifying Critical Activation Paths
Notable Modules:

- Computer Programming - 100%
- Mathematics for Computing - 84%
- Object Orientated Design - 95%

PETER SYMONDS COLLEGE

Sept 2016 - May 2018 | Winchester, UK
Computer Science - C
Mathematics - B
Further Mathematics - C

EXPERIENCE

IBM | Software Engineer

Sept 2018 - Present | Hursley, UK
Key Projects:

- Data Processing Engineer - Helped to develop an application in GoLang that is capable of ingesting large amounts of data and transforming it into a usable format for downstream systems.
- Full-stack developer - Developed and delivered a large critical system using a stack of React, Spring Boot, and MongoDB to the government sector that is capable of managing a large amount of entities within a department.
- Machine Learning Engineer - Delivered a Proof of Concept application to the government sector to monitor error logs in a system and triage them based on importance.
- Patent Submission - Researched and submitted a patent for generating synthetic data that could be used to train a Neural Network.
- Document Sanitizer - Led a team of developers in creating an application that would highlight any sensitive words in a document.
- Mentor - Assisted a graduate software developer in starting his career at IBM, including helping him find a project and answering any questions that he had about the company.

CERTIFICATIONS

2022 Google Cloud Cloud Digital Leader

PROJECTS

BRISK

Summer 2020

- Built my own interpreted programming language in GoLang, along with a REPL to execute Brisk code.
- Implemented Lexer, Abstract Syntax Tree, and Evaluator fully process and execute code.

SYNTHETIC DATA GENERATION

Summer 2021

- Developed a method of generating synthetic data that can train a Neural Network to be accurate against real world data.
- Completed project using Pandas for data analysis, and PyTorch for researching and developing the method.

BOOK CONTRIBUTION

Summer 2021

- Performed data analysis and model creation for a vignette in the book Beyond Algorithms: Delivering AI for Business (James Luke, David Porter, Padmanabhan Santhanam)
- Created the models using Tensorflow and Keras.

SKILLS

PROGRAMMING

Languages:
Python • Java • Javascript • GoLang
SQL • Scala
ML Frameworks/Libraries:
Tensorflow • Pytorch • Pandas • Scikit-learn • Matplotlib
Full Stack Frameworks/Libraries:
React.js • Redux • Spring Boot • Flask • MongoDB
Technologies:
Docker • Kubernetes • Openshift • Jenkins
Git • Google Cloud
Methodologies:
Agile (Scrum) • Waterfall

INTERESTS

Cycling • Coffee • Gaming • Learning