CALLUM MCLENNAN

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EDUCATION

Reading University
MSc in Data Science and Advanced Computing   September 2021 - 2022
Distinction

Reading University
BSc in Computer Science   September 2018 - 2021
First Class + Hons

EXPERIENCE

Devon County Council
Applications Analyst / Software Engineer   July 2021 - Present

- Developed and actively maintain a C#.NET Identity Management system to enhance security
- Optimised deployment with Azure DevOps CI/CD pipelines, substantially reducing delivery time
- Developed thorough testing strategies to guarantee the reliability of deployed applications.
- Leading development of AI-based support call assistant using Python, Flask and Ivanti API
- Collaborate with cross-functional teams to gather requirements and prioritize development tasks
- Assisted colleagues by providing support during call-related tasks and inquiries.

Freelance
Software Engineer   July 2022 - Present

- Deployed Django booking site for tattoo artist at aawtattoo.com; uses GitHub Actions CI/CD
- Designed Flask QR code generator website ineedaqrcode.com which generates revenue
- Developed private invoicing system using C#/.NET, reducing invoice generation time
- All projects are monitored by Prometheus and Grafana, utilizing webhooks for notifications

PROJECTS

The Forge   Python, AI, Machine Learning   https://github.com/a-curious-coder/theforge
- Created an AI-driven CV generator that produces customized resumes for users effectively.
- Employed machine learning algorithms to improve and customize resumes effectively.
- Implemented Natural Language Processing techniques for job description analysis.
- Enhanced usability by creating a user-friendly interface with intuitive design features.
- Performed model evaluations to enhance AI performance and improve accuracy significantly.

Neurosight   Python, Deep Learning, TensorFlow https://neurosight.callummclennan.dev
- Built a deep learning model to classify Alzheimer's disease using medical images.
- Utilized TensorFlow to develop and train machine learning models effectively.
- Processed extensive MRI scans to extract relevant features for classification.
- Enabled early detection and impactful treatment decisions using model outputs.
- Enhanced model accuracy through performance evaluation and tuning processes.

Evolario   Python, Game Development, AI   https://github.com/a-curious-coder/evolario
- Designed a simplified AGAR.IO clone for testing AI agents in a dynamic arena.
- Implemented AI behaviours to simulate competitive interactions among agents.
- Teamed up with peers to enhance algorithms for improved real-time performance efficiency.
- Analyzed gameplay data to derive strategies and enhance agent intelligence.
- Facilitated extensive testing environments for evaluating AI efficacy and growth.

INeedAQRCode   Python, Flask, Web Development   https://ineedaqrcode.com

- Created a Flask web application that generates customizable QR codes for user needs.
- Developed backend features to efficiently manage user input and output functionalities.
- Improved application performance by implementing asynchronous request handling techniques.
- Provided an intuitive design that ensured a seamless user experience through smart features.
- Ensured secure and efficient data processing alongside QR code generation protocols.

TECHNICAL SKILLS

- Python
- Machine Learning
- SKLearn
- TensorFlow
- PyTorch
- Neural Networks
- CI/CD
- C#/.NET

- Flask
- Django
- PostgreSQL
- API Integration
- Docker
- Azure DevOps
- MSSQL Server
- GitHub Actions