SEAN COAKER

Software Engineer MEng

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CODE & TOOLS

Proficient

Python | Java | C++

Arduino C | Kotlin

TensorFlow | PyTorch

Pandas | NumPy | Keras

SKLearn | Transformers

Git | Jira | Confluence

Android | Arduino

Linux | Windows | Qt

Agile SDLC | SAFe 5

Exposure

C | Haskell | Bash

SQL | XML | HTML

SPARK Ada | Verilog

SKILLS

Leadership | Punctuality

Organisation | Teamwork

Work Ethic | Documentation

Problem Solving

Communication

Project Management

LANGUAGES

English | Welsh

EXTRA CURRICULAR

🏏 **Semi-Professional Cricketer**

🎮 **Top 0.15% of Players in Rocket League**

ABOUT ME

A highly competitive individual driven by a relentless desire to excel and make a meaningful impact. I bring ambition, determination, and unwavering dedication to every endeavor. With a passion for success, I continuously strive to reach new heights both personally and professionally.

My competitive nature extends to fostering an environment where teamwork and collaboration thrive, believing in the power of collective effort. I have demonstrated my ability to work effectively within diverse teams and thrive in an environment where ideas are openly exchanged, challenges are met head-on, and innovative solutions are collectively crafted. I actively seek out opportunities to collaborate with individuals from different backgrounds, recognising that diverse perspectives can lead to breakthrough innovations and exceptional outcomes.

EXPERIENCE

Junior Consultant | Capgemini   📅 November 2022 – Present

- (AI/ML) - Contractor at VIAVI Solutions
  - Thrust into VIAVI's AI/ML development team upon joining Capgemini.
  - As a team of 2, we showcased PoCs to enhance turnaround time for software defect life cycles in production and hardware utilisation in VIAVI test labs. Upon successful delivery, we transitioned the PoCs into production-grade applications.
  - Collaborated with various stakeholders (Scrum Masters, Product Owners, and Senior Management) to collect requirements.
  - Designed and developed a classification NLP pipeline, taking a project from the planning phase, all the way through the design and development phase.
  - Optimised code to minimise execution times and storage usage.
  - Promptly understood device command logs to effectively develop algorithms that collect and group data accordingly.
  - Created and maintained use-case documentation with block diagrams, design approach, experiment results, and benchmarking metrics using JIRA and Confluence.
  - Drove the team's commitment to many coding best practices, including git commit conventions and the abstraction of code in an object-oriented manner.
  - Followed a CI/CD pipeline to simultaneously develop crucial features needed to progress the project in a timely manner.
  - Undertook peer code reviews when pull requests were submitted.
  - Estimated story points, time for feature development completion, and time to bring the project to production standard.
  - Utilised Python, Pandas, NumPy, SKLearn, Transformers, TensorFlow, Keras, PyTorch, JIRA, Confluence, Git, SAFe 5, CI/CD.
- (AI/ML) - Voluntary Initiative Work
  - Identified tools and developed a system for road sign detection and classification.
  - Collaborated with the team to suggest methods for developing a viable solution.
  - Identified and documented business use cases and user stories.
  - Utilised Python, Pandas, NumPy, TensorFlow, Keras, YOLOv3, OpenCV
- Received excellent feedback/appreciation from VIAVI in mid-year review cycle with Capgemini.

EDUCATION

MEng Computing - 87% | Swansea University — 📅 10/2018 – 07/2022

- High-Integrity Systems (Year M) - 95%
- Blockchain, Cryptocurrencies and Smart Contracts (Year M) - 94%
- Software Engineering Project Planning and Management (Year 3) - 93%
- Embedded Systems (Year 3) - 92%
- Big Data & ML (Year M) - 89%
- Advanced OOP (C/C++) (Year 3) - 88%
- Software Engineering (Year 2) - 87%
- Computer Graphics (Year 2) - 86%
- Optimisation (Year M) - 86%
- Writing Mobile Apps (Year 3) - 85%
- Algorithms (Year 2) - 84%
- Database Systems (Year 2) - 82%

- 🏅 **Top Student in the School of Mathematics and Computer Science with an Integrated Masters Degree**
- 🏅 **Overall Top Student in the Faculty of Science and Engineering with an Integrated Masters Degree**
- 🏅 **Best Overall Performance of a Student on an Integrated Masters (MEng/MSci) Degree**

PROJECTS - PORTFOLIO: WWW.SEANCOAKER.COM

Batch Uploading & Timing Platform with Firefly Synchronisation - Master's Project | *91%* — 📅 10/2021 – 05/2022 Swansea University

- Built a solution within a network of embedded systems, along with connected LoRa WAN modules, to demonstrate how firefly synchronisation can be used to synchronise devices for use in robust communication.
- Developed a cross-platform desktop application that allows for batch uploading and testing of code on Arduino devices that incorporated the testing and development of my firefly synchronisation code.
- Utilised: Arduino C, Arduino CLI, Arduino Libraries, Python, PyQt5, Git

Walking Aid Usage Prompt - Master's Group Project | *100%* — 📅 11/2021 – 05/2022 Swansea University

- Developed the full software system for a bi-device system that detects when Dementia patients begin walking without their walking aid. When this happens, an audio reminder is played to the patient.
- Despite being encouraged not to assign a leader within the group, I attempted to lead the group through leading by example, and by consistently prompting the team to complete work before specified deadlines.
- I was the Communications Officer, so I worked closely with the client to define user requirements and procure hardware.
- Utilised: Arduino C, Arduino Libraries, Git, I2C Comms Protocol, SPI Comms Protocol, I2S Audio Comms Protocol

Customisable Digital Food Label App - Bachelor's Project | *85%* — 📅 10/2020 – 05/2021 Swansea University

- Developed an Android application that allows users to scan food product barcodes, document what they have eaten and keep track of any allergy symptoms experienced from eating those foods. Users can see a customisable virtual food label, which is displayed as it's own layout or as an augmented reality scene.
- Utilised: Kotlin, Java, Google's MLKit, ARCore, JSON, Firestore, Firebase, OkHTTP Library, CalendarView Library, SceneForm Library

CERTIFICATIONS

Applications of AI for Anomaly Detection | NVIDIA — 📅 03/2023

Building Transformer-Based NLP Applications | NVIDIA — 📅 03/2023