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Australian Citizen | British Citizen

ABOUT

Dynamic and articulate Computer Science and Artificial Intelligence graduate, known for energy, resilience, and a willingness to relocate post-graduation. Seeking a professional position where my education and internship experience can be fully leveraged, with ample opportunities for continued growth and development.

KEY SKILLS

- Proficient in several coding languages, including Python, JavaScript and C++, with a foundation in algorithm design and problem solving.
- Collaborative abilities, fostering productive teamwork to achieve milestones and innovate solutions.
- Able to adapt to new environments and challenges.

EDUCATION

BSC Computer Science & AI (Hons) | 2021 - 2025 | Loughborough University
Degree Completion: July 2025

- First-year Modules: Computer Systems, Databases, Embedded Systems Programming, Functional Programming, Introduction to Algorithms, Introduction to Programming, Logic for Computer Science, Mathematics of Computer Science, Object Oriented Programming, Software Engineering 1, Web Programming.
- Second-year Modules: Formal Languages and the Theory of Computation, AI Methods, Computer Graphics, Software Engineering 2, (Operating Systems, Networks and the Internet 1), Team Projects, Formal Methods, (Operating Systems, Networks and the Internet 2), Professional Issues in Computing, Mobile Application Development
- Final-year Modules: Robotics, Agent-Based Systems, Advanced Artificial Intelligence Systems, Cloud Computing, Data Mining and Machine Learning, Advanced Networking, Distributed Systems, Computer Vision, AI Project.

Ontario Secondary School Diploma | 2017 – 2021 | Earl Haig Secondary School

PROJECTS

NETWORK SECURITY ANALYTICS PLATFORM | PYTHON, ZEEK

- Inspired by an IDS, this is a multi-layered threat detection analysing network connections using rule-based patterns, machine-learning anomaly detection and signature matching.
 - Achieved detection of port scanning, brute force attacks, and backdoor communications with a reporting pipeline for security analysis.

CUSTOM LANGUAGE MODEL FOR RISK ENGINEERING | FINAL YEAR DISSERTATION

- Developed a Retrieval-Augmented Generation (RAG) chatbot to assist fire risk assessors by providing instant, accurate, and source-cited answers to technical fire safety queries.
 - Built a full-stack AI system combining LLMs with a domain-specific vector database for semantic search and contextual response generation.
 - Scraped and processed 150+ documents (standards, case studies, technical datasheets) into a structured knowledge base.
 - Generated 15,000+ question-answer pairs using GPT-3.5/GPT-4 to simulate expert-level dialogue.
 - Designed and deployed an interactive chat interface using Next.js with a FastAPI backend, supporting natural language input and multi-turn dialogue.
 - Achieved 90%+ accuracy across 50 expert-reviewed queries compared to manual lookup and legacy expert systems.

CRAFT & CRNN MACHINE-LEARNING PIPELINE | PYTHON, OPENCV, CRAFT, CRNN, PYTORCH, JUPYTER LAB

- Built an end-to-end machine learning pipeline to extract text from real-world scene images using a combination of detection and recognition models.

- Applied the CRAFT model to detect irregular-shaped text regions, then passed the cropped text areas to a CRNN (Convolutional Recurrent Neural Network) for sequential character recognition.

ROBOT FOLLOWER | PYTHON, JUPYTER LAB,

- Programmed a mobile robot to autonomously:
 - **Follow a specific person** around a space using YOLO-based object detection and color histogram tracking, resilient to occlusion and interception.
 - **Track a visual path** by detecting and following a yellow tape trail on the ground via color segmentation and contour analysis.

ME, YOU, KAIJU | UNITY, VR, C# | SENTIENT COMPUTING

- Developed and implemented NPC behavioristics, including movement, detection, speech and interactivity, enabling realistic interactions within the VR environment, such as object manipulation and dynamic responses.

MANAGEMENT CHAT AND DASHBOARD | NEXT.JS TAILWIND, TYPESCRIPT, APIS, PRISMA

- Collaborated on a team project to develop a chat system and project dashboard, facilitating improved employee communication, and providing detailed insights into the individual and project performance.

FASHION MOBILE APP | ANDROID STUDIO | JAVA | FIREBASE

- Developed a mobile outfit creator application, enabling users to log in/register, browse, save, and purchase clothing items as well as upload items they already own to create personalized outfits.

PRODUCTIVITY MANAGEMENT SUB-SYSTEM | HTML, TAILWIND, NODE JS, NEXT, SQL

- Facilitates project creation and daily task management for employees, managers, and team leaders, enhancing individual and team productivity.

COMPUTER ACCESSORIES SHOP | JAVA APPLICATION

- Developed a versatile system enabling businesses to manage shop activities.

WEDDING VENUE WEBSITE | HTML, CSS, PHP, MYSQL | WEB DEVELOPMENT

- Developed a full-stack responsive website allowing users to effortlessly search for and explore wedding venues.

LIBRARY MANAGEMENT SYSTEM | PYTHON

- Designed and implemented a comprehensive library management system empowering librarians to efficiently manage book inventory, checkouts, and returns. Members receive personalized book recommendations based on their borrowing history and search preferences.

PONG GAME | PYTHON

- Developed a Python-based multiplayer rendition of the world's first commercially successful video game.

WORK EXPERIENCE

SENTIENT COMPUTING

Aug 2023 – Aug 2024

Software Developer Intern

Perth, Australia

- Developed responsive websites using ReactJS, TanStack Query/Router, and APIs.
- Created immersive VR/AR projects in Unity, integrating them into real-world 3D environments.
- Utilized Blender for 3D modeling and contributed to customer projects with billable work.
- Mentored junior interns, providing guidance and support in technical and project-related matters.

BELL FOUNDRY

Bartender
Loughborough, England

Jul 2022 – Sept 2022

- Took orders for drinks from guests and delivered them accurately and promptly.
- Efficiently made and served both basic and classic drinks.
- Recommended beverage options to patrons to increase guest satisfaction.

GO MAMMOTH
Referee
London, England

Sep 2022 – Oct 2022

- Officiated touch rugby and dodgeball matches.

LOUGHBOROUGH UNIVERSITY
Student Ambassador
Loughborough, England

Jan 2022 – Jun 2022

- Provided confident guidance and information to University visitors, ensuring all questions were promptly and thoroughly addressed.

CERTIFICATES

- CPA: Programming Essentials in C++
- Introduction to Internet of Things (IOT)
- CISCO Networking Academy

HOBBIES

- Rugby Union
- Mechatronics Engineering
- Guitar