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Ryan, Paul McKenna

Date of birth: 08/12/1994 | **Nationality:** Irish, British | **Phone number:** (+44) 7462881123 (Mobile) | **Email address:** ryan.mckenna002@gmail.com | **Website:** https://www.mckenna-technologies.com/ | **Website:** https://github.com/RyanPaulMcKenna | **LinkedIn:** https://www.linkedin.com/in/ryan-mckenna-870847165/ |

Address: 45 Maple Grove, YO104EJ, York, United Kingdom (Home)

ABOUT ME

I am an accomplished software engineer and researcher with a solid background in scientific computing, machine learning, embedded software engineering. Currently pursuing a PhD in Computer Science at the University of York, my research focuses on the intersection of robotics and robotic deformable object manipulation. With a robust background in developing embedded systems, integrating machine learning models, and working with advanced robotics, I am seeking a role that leverages my skills in scientific computing, machine learning and embedded development to drive innovative solutions and advance technological frontiers.

Key Strengths:

- Advanced knowledge of C++, Python, MATLAB, and ROS, with hands-on experience in embedded systems, microcontrollers, and real-time operating systems.
- Proven track record of full lifecycle software development, from concept design to testing and release, with a focus on clean, reusable code and adherence to design patterns.
- Strong analytical skills in big data, including data cleansing, augmentation, visualization, and machine learning model integration for business insights.
- Demonstrated ability to manage and execute complex projects, both independently and collaboratively, with excellent communication and stakeholder engagement skills.
- Passionate about leveraging cutting-edge technologies to solve challenging problems and contribute to impactful projects in scientific computing, machine learning, and robotics.

I am enthusiastic about the opportunity to bring my technical skills, innovative mindset, and dedication to excellence to a dynamic and forward-thinking organization.

WORK EXPERIENCE

17/02/2022 – 09/05/2023 Bristol, United Kingdom

EMBEDDED SYSTEMS SOFTWARE DEVELOPER MBDA

- Developed robust embedded systems in C & C++ for unmanned and robotic systems, increasing system efficiency by 20%.
- Implemented various communication protocols (CAN, UART, I2C, SPI), resulting in a 30% improvement in data transmission reliability.
- Collaborated with cross-functional teams to design control systems, which enhanced the precision of control systems by 25%.
- Contributed to the design of autonomous systems, improving system adaptability for real-world tasks by 35%.

Address 3 Golf Course Ln, Bristol , BS34 7QS, Bristol, United Kingdom

11/05/2018 – 15/04/2021 Manchester, United Kingdom

SOFTWARE ENGINEER ELIXIR SOFTWARE

- Led the end-to-end development of new features for ITRAX, a productivity system for chemists, which boosted laboratory efficiency by 40%.
- Integrated computational chemistry tools (CHEMDRAW & Cython) into the software, accelerating the chemists drug discovery workflow by 15%.
- Created clean, reusable code in line with design patterns, reducing maintenance time by 25%.

- Handled and examined extensive datasets with advanced statistical modelling techniques, yielding insights that supported better decision-making and enhanced business efficiency by 30%.
- Designed data visualization systems, which enabled better forecasting and project planning for scientists.

Address Glasshouse, Alderley Park, Congleton Road Nether Alderley, Macclesfield, SK10 4ZE, Manchester, United Kingdom

05/03/2016 – 15/02/2018 Sheffield, United Kingdom

SOFTWARE DEVELOPER FREELANCE

- Delivered full-stack web development services to small businesses, improving client web performance by 50%.
- Built scalable web applications using JavaScript, Python, and Bash, reducing development costs by 15%.
- Set up and optimized servers with Nginx and reverse proxies, enhancing website uptime and reducing load times by 20%.
- Utilized cloud platforms like AWS and GCP to improve security and scalability, resulting in a 35% reduction in infrastructure costs for clients.
- Maintained client relationships and delivered projects on time, leading to a 90% client retention rate.

EDUCATION AND TRAINING

10/10/2023 – CURRENT York, United Kingdom

DOCTOR OF PHILOSOPHY (COMPUTER SCIENCE) University of York

Address Heslington, York, YO10 5DD, York, United Kingdom | **Website** https://www.york.ac.uk/ | **Level in EQF** EQF level 8

12/09/2019 – 26/06/2022 Chester, United Kingdom

MASTER OF SCIENCE University of Chester

Address Parkgate Rd, Chester , CH1 4BJ, Chester, United Kingdom | **Website** https://www.chester.ac.uk/ |

Level in EQF EQF level 8

10/09/2016 – 30/06/2019 Sheffield, United Kingdom

BACHELOR'S OF ENGINEERING Sheffield Hallam University

Address Howard St, Sheffield City Centre, Sheffield , S1 1WB, Sheffield, United Kingdom | **Website** https://www.shu.ac.uk/ |

Level in EQF EQF level 7

LANGUAGE SKILLS

Mother tongue(s): **ENGLISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
SPANISH	B1	B1	A2	A2	B1
FRENCH	A2	A2	A1	A1	A2
GERMAN	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

C++ | CUDA | Numpy | Matplotlib | PyTorch | Python | OpenCV | MATLAB | Algorithms & Data-structures | Micro-controllers | STM32 | sympy | Linux | AWS | GCP | Pandas | scipy | ROS | Isaac-gym | Git | Deep Learning | Machine Learning | Scikit-Learn | Artificial Intelligence | SQL | Data Science | Seaborn | Keras | Computer Vision | Data Analysis | Test-Driven-development | software metrics | UML-diagramming | ER-diagramming | Embedded C / Embedded Linux / RTOS / Testing Fundamentals / Confident using Raspberry pi | RTOS | Altium Designer, Xilinx, MS Office, AutoCAD, Micro-vision Keil, | AutoCAD and Inventor CAD program | CAD (FreeCAD) | Gcc, Clang, CMake, Make basics | Modern C++ Boost Library | NVIDIA Omniverse