



## Ryan, Paul McKenna

**Date of birth:** 08/12/1994 | **Nationality:** Irish, British | **Gender:** Male |

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<https://www.mckenna-technologies.com/> | **Website:**

<https://github.com/RyanPaulMcKenna> | **LinkedIn:**

<https://www.linkedin.com/in/ryan-mckenna-870847165/> |

**Address:** 2 Ambrose Street, YO104ED, York, United Kingdom (Home)

### ● ABOUT ME

I have worked in Scientific Computing, Machine Learning, Embedded Software Engineering and Robotics. Currently I am pursuing my PhD in Computer Science at The University of York, my research is focused on the intersection between Soft-Robotics and Robotic Deformable Object Manipulation. I want to help make robots safer, cheaper and better for working around people.

### ● WORK EXPERIENCE

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

#### **EMBEDDED SYSTEMS SOFTWARE DEVELOPER** MBDA

- Embedded development in C & C++ on Linux.
- Working with various micro controllers and communication protocols such as CAN, UART, I2C and SPI. Knowledge of DC motors and other components.
- Leveraging electrical engineering knowledge, schematic & PCB design.
- Experience working on unmanned or robotic systems.
- Control systems, control theory, robotics for machine learning

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

25/04/2021 – 10/02/2022 Barcelona, Spain

#### **SOFTWARE DEVELOPER** MCKENNA TECHNOLOGIES

- Operating as an independent Developer focused on Computer Vision and Machine learning. Using libraries such as OpenCV, Pytorch, Numpy, Pandas.
- Working on Linux systems in Python and C++. Working with SQL databases. Performing statistical analysis to fine tune model results.
- Provided expert hands-on technical advice, guidance, and consultancy to B2B clients, aligning relevant, viable technological solutions to ever-changing business needs

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

#### **SOFTWARE ENGINEER** ELIXIR SOFTWARE

- Worked through the full lifecycle of multiple projects, from concept design, through development, to testing and release for ITRAX (Productivity system for chemists).
- Integrating graphical libraries for computational chemistry into the management software, giving scientists the power to interactively develop and document the process of drug discovery – using the well known python library CHEMDRAW.
- Created easy to understand, clean, reusable code for future use, developed according to design patterns and refactored as necessary.

- Working with big data, requiring data cleansing, augmentation, visualization and analysis. Integration of Machine learning models for business insights.
- Perform tasks such as Principal Component Analysis, Dimensionality Reduction, Normalization, feature extraction, de-noise, de-noising, sampling on customer data to inform future business and development goals.

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

## EDUCATION AND TRAINING

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/>

12/09/2019 – 26/06/2022 Chester, United Kingdom  
**MASTER OF SCIENCE** University of Chester

**Website** <https://www.chester.ac.uk/>

10/10/2023 – CURRENT York, United Kingdom  
**DOCTOR OF PHILOSOPHY** University of York

**Address** Heslington, York, YO10 5DD, York, United Kingdom | **Website** <https://www.york.ac.uk/>

## LANGUAGE SKILLS

Mother tongue(s): **ENGLISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>SPANISH</b>	B1	B1	A2	A2	B1

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)