

Zachary Atkinson

Woking, United Kingdom

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Recent MEng Robotics Engineering graduate (University of Bath, 2025) with proven expertise in reinforcement learning and sim-to-real deployment. As part of my final year dissertation, I developed and deployed a reinforcement learning (RL) model in NVIDIA Isaac Sim, using the Robot Operating System (ROS) to control a physical UR3 manipulator. Strong programming foundation in Python, C++, and MATLAB, with professional experience at Atlas Elektronik developing automated systems. Now seeking a graduate robotics engineer position where I can apply machine learning, automation, and control systems expertise in real-world applications.

Key skills

Programming: Python, C++, C, MATLAB

Robotics Frameworks: ROS, NVIDIA Isaac Sim, Isaac Lab

Machine Learning: PyTorch, CNNs, MLPs, Reinforcement Learning

Hardware: Arduino, Raspberry Pi, UR3 Manipulator

Tools: Git, Jira, Unreal Engine 5

Engineering: Control Systems, Sim-to-Real Transfer, Computer Vision

Career history

Company: Atlas Elektronik

Role: Control Systems Engineer (industry placement)

Date: Sept 2022 – Sept 2023

- Developed automated pathing systems for marine vessels using Unreal Engine 5, improving navigation efficiency.
- Applied game theory algorithms to automate systems and contribute to bid proposals.
- Created search pattern algorithms as part of collaborative multi-team projects.
- Delivered technical presentations to management, including bid presentations to senior leadership.
- Used Git and Jira for version control and project management.

Company: Sainsburys

Role: Online shopper

Date: June 2021 – Aug 2021

- Supported multiple stores in ensuring complete orders for delivery in a high paced environment.

Company: Evans Cycles
Role: Customer Assistant
Date: June 2019 – Sept 2020

- Delivered excellent customer service and processed retail transactions
 - Provided technical support for bicycle purchases and maintenance service
 - Developed my communication skills working with diverse customer base
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Education

University of Bath 2020 - 2025
MEng (Hons) Robotic Engineering 2:1 (expected)

Key Projects:

- Final Year Dissertation: Developed sim-to-real reinforcement learning system using NVIDIA Isaac Sim, successfully deploying trained RL policies to physical UR3 manipulator for autonomous manipulation tasks
- Team Leadership: Project manager for robotic exoskeleton hand development for piano learning assistance
- Applied machine learning including CNNs, MLPs, and computer vision for robotic control systems

Woking College (A-Level) 2018 – 2020

- Computer Science (A*), Mathematics: (A) , Physics: (A)
- Extended Project Qualification (A): Designed wireless remote-controlled vehicle with VR vision system using Python and Raspberry Pi

Woking High School 2013 – 2018

- 10 GCSEs, including: Further Maths: A, Maths: 8, Physics 8, English Literature: 7
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Interests & Activities

I enjoy endurance sports such as running, cycling and rock climbing, which help develop focus and resilience. I am passionate about programming and am a major fan of Formula 1 and the associated engineering and strategy.