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| Jack Hughes - CV | BS1 | Bristol 07494878784 jackmhughes1998@gmail.com [linkedin](https://www.linkedin.com/in/jack-hughes-latchamdirect/) | [github](https://github.com/jack4hughes) |

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# Academic History:

## BEng Robotics: 2:1 (2022-2025)

* Studied Robotics at UWE. Achieved 68% overall.
* Designed robot control system for a robotic arm in ROS2 using handheld controller, live camera feeds and gaze-tracking user inputs.
* Designed embedded systems for robot control, requiring communication between different micro-controllers using UART, interfacing with digital and analog sensors and hardware/software debugging.
* Trained and evaluated the performance of machine learning models for object detection and robot positioning.

## BA Broadcast Journalism: (2019-2022)

Studied Journalism at the University of the West of England. # Experience:

## Research Internship - Bristol Centre for Machine Vision (2024)

* Acted as research assistant for study that used eye-tracking to detect early signs of dementia.
* Conducted statistical analysis on experimental data, testing for normality, then finding effect size and significance using appropriate methods.
* Completed literature review of other eye-tracking methods used to detect early dementia symptoms.

## Marketing Assistant - Latcham (2022 - 2025)

* Moved Latcham from WordPress web environment to HubSpot, debugging and fixing issues with HTML, CSS and JavaScript.
* Wrote marketing copy for Latcham, improving communication, editing and rewriting webpages.

## HR Assistant - Latcham (2019 - 2022)

* Moved Latcham from paper-based HR filing system to PeopleHR HR platform.
* Processed data using Excel and Power BI, giving directors dashboards to understand the company’s financial performance and the performance of individual marketing sectors.

# Societies:

## UWE AI Society (2024-2025):

* Designed vectorised version of SLAM mapping system using Numpy, leading to 50x speedup when compared to previous Python implementation
* Assisted with testing of UWE Formula AI car during competion and at testing days.
* Wrote documentation on fastSLAM code for incoming Formula Student members.

# Skills:

* Embedded systems
* Machine Learning
* Data Analysis/Visualisation
* Project planning
* Systems integration
* Control (Tuning and evaluation of PID, Fuzzy Logic Systems and neural-net based control systems.)
* prototype design in Solidworks.
* Basic Prototype PCB design.

## Coding Languages:

* C (Embedded experience with DSPic and STM32 boards.)
* Python (NumPy, Pandas, TensorFlow and MatplotLib),
* MATLAB (Data Analysis, Algorithms and Data Visualisation),
* Basic Rust

## Languages:

English, Basic German