Jack Hughes - CV

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Academic History:

BEng Robotics: 2:1 (2025)

- Designed robot control system using handheld controller input and gaze-tracking using ROS2 and OpenCV.
- Designed embedded systems for robot control, requiring communication between different micro-controllers using UART and interfacing with digital and analog sensors.
- Trained and evaluated the performance of machine vision models for classifying and localising objects within an image.

BA Broadcast Journalism: (2022)

- Learned video and audio editing, as well as camera and presenting skills.
- Worked efficiently to meet highly demanding daily deadlines.

Work 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 using an eye test designed to trigger the Simon Effect.
- Conducted statistical analysis on experimental data to find effect size and significance.
- 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.)

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