James Pilcher

www.github.com/jamespilcher jamespilcher.github.io

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EDUCATION

BSc (with Year in Industry) Computer Science, University of Exeter **09/2021 – 06/2025**

Second Year, 86.1% Avg.

- Dean's Commendation (21-22), Computing Society President (22-23)
- Noteworthy Modules: Software Development, Data Structures and Algorithms, The C Family, Computational Mathematics, AI and Applications.

A-Levels, Peter Symonds College **09/2019 – 06/2021**

- Mathematics A*, Further Mathematics A, Physics A

EXPERIENCE

(Incoming) Software Engineer Placement, Rapyuta Robotics Tokyo **07/2023 – 05/2024**

C++, Python, PyTest

- Software development/testing/integration for reliable autonomous mobile robots.

Machine Learning Intern, University of Cambridge **05/2022 – 06/2022**

Linux, Python, NumPy, Keras, OpenCV, Jupyter Notebook, Bash

- Established a development environment utilising a laptop, a Linux box, Venv, Jupyter Notebook, and Git.
- Received thorough one-on-one tuition on the theory behind neural networks and computer vision.
- Implemented a neural network using pure NumPy arrays and applied a pretrained object detection model (MobileNetV2) to a live webcam.

President, Exeter Computing Society **06/2022 – 06/2023**

Excel, Trello, Teams, Team management

- Managed a team of 11 to provide bi-weekly events for over 140 members while ensuring financial stability.
- Delegated work correctly so goals could be reached within tight deadlines.
- Fostered positive relations with the Computer Science Department by orchestrating a 'Meet the Lecturers' social event that had over 100 attendees and collaborating on hackathons.

Global Organising Team Member, JunctionX Hackathon **11/2022 – 04/2023**

Excel, Notion, Teams, Public Speaking

- Pitched to numerous potential partners, acquiring valuable sponsorship for JunctionX Exeter.
- Oversaw the event and contributed in the judging process. Demonstrated strong critical evaluation skills by thoroughly assessing submissions and providing insightful questions.

PROJECTS

- **jamespilcher.github.io** – *HTML, CSS, JavaScript, APIs, GitHub Pages* – Maintaining a personal website made from scratch, featuring a blog, interactive JavaScript mini-projects, and a portfolio of my musical endeavors.
- **Maze Solver Notebook** – *Python, Jupyter Notebook* – Experimented with and implemented various search algorithms for state space traversal. Presented the concept in an exploratory and educational manner, highlighting the influence of heuristics on algorithmic efficiency.
- **StreathamQuest** – *Python, Django, HTML, CSS, JavaScript, Git Flow, GitHub Actions, Kanban* – Applied Agile methodologies through two three-week sprints to develop and deliver a sustainability-based web app, emphasizing effective version control using feature, dev, and main branches.
- **LAMP Stack Tetris Site** – *Linux, Apache, MySQLi, PHP, Azure, SSH, Cookies* – Produced a full stack website featuring a functional log-in system and public leaderboards for a JavaScript Tetris implementation.
- **Cycling Race Management Backend Package** – *Java* – Coordinated in a pair to create a package that facilitated the creation and management of a cycling tournament. Designed well-encapsulated objects, followed the Google Java Style-guide, had clear commenting and generated a HTML Javadoc.