George Hawkins
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I hold a degree in Electronic Engineering with a Master's specialising in Machine Learning, and have hands-on experience across the full product lifecycle, from early-stage design and software development through to machine learning model training, deployment, installation, and aftersales support. In my current role, I've contributed to both hardware and software engineering efforts, led data management and ML initiatives, and represented the product in client-facing sales meetings and pitches. I thrive both independently and within teams, consistently delivering on self-managed goals.

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## Education

**The University of Manchester** (September 2016 – June 2021)
      **MEng in Electronic Engineering with Industrial Experience**
      First Class Honours

**The Portsmouth Grammar School** (2012 -2016)
      **A Levels**
      Physics: A, Electronics: A, Maths: B
      **GCSEs**
      10 GCSEs achieved, 7 Graded A*- A including:
- Mathematics A
- English Literature A, English Language A*

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## Experience

**Lion Vision - Machine Learning Engineer (October 2021 - Present)**

- Served as technical lead across all layers of the machine learning application stack in a self sufficient role.
- Designed and implemented tools for data preprocessing, model training, and post-processing of inference results.
- Developed the production-grade runtime inference system for real-time computer vision applications.
- Acted as a key technical representative in high-level meetings with executives and stakeholders.
- Designed,  fabricated and built the physical hardware products for install. Also installed said hardware on site as well as acting as a support engineer when issues arose.
- Oversaw end-to-end ML pipeline development, ensuring scalability, performance, and maintainability.

**University of Manchester – Computer Vision/Machine Learning Research Assistant (**June 2021 - July 2021**)**
- Research assistant for a Computer Vision Machine Learning research Knowledge Transfer Project.
- Led dataset acquisition as well as aiding with runtime application development.
- Helped lead sessions to test these scripts on real world scenarios detecting batteries in a waste stream.

**Siemens/Network Rail (BSquare Controls) – Junior Software Engineer** (July 2018 – July 2019)

- Developed and maintained C# drivers for CCTV, Telephony, and Public Address systems used in the Crossrail project.
- Quickly ramped up on complex legacy systems and became a go-to expert for key components.
- Deployed and tested software updates in an on-site test environment, ensuring reliable integration.
- Worked with proprietary tools including Railcom Manager for system data handling and virtualisation.
- Contributed to Agile workflows through regular stand-ups, Jira tracking, and use of Plastic SCM for source control.
- Supported a Network Rail contract by adapting legacy SCADA systems to a modern platform.

## Skills

- **Programming Languages:** C/C++, C#, Python, Assembly and VHDL
- **ML/Vision:** Pytorch, TensorFlow, Numpy, OpenCv
- **Development Tools:** LabVIEW, MATLAB, and Simulink
- **Source control:** Experience with Git, as well as management tools with JIRA
- **Database:** Experience with mySQL and Grafana
- **Design Tools:** SolidWorks, Altium, Sketchup, KiCad

- **Working:** Extensive experience working in groups and also alone, able to fit whatever dynamic is needed.
- Frequently presented at events to clients and key stakeholders(e.g. DEFRA).
- Hands on electronics and hardware experience
- Extensive Linux environment experience
- Proficient in MS office and Google products

## Projects, Societies and Competitions

- **Robotics Society (UoM):** Built a goal-scoring robot using Raspberry Pi and Python/OpenCV.
- **Embedded Systems Group Project:** Led C++ development for an ARM-based line-following robot. Finalist and Innovation Prize winner.
- **Blott Matthews "Mission to Mars" Challenge:** Member of winning sixth-form team designing a manned Mars mission.

## Hobbies and Interests

- **RC vehicles and model train automation:** I enjoy electronics projects outside of work which are typically related to model train automation or RC planes/quadcopters. I occasionally develop custom PCBs for aspects of this as well as custom software.
- **3D printing:** I enjoy CAD and design which I practice outside of any work capacity, usually to create parts for my other hobbies.
- **Lego Instructions:** I design models in lego in my spare time that I create instructions for via the bricklink studio software. I then sell these via an online service.