Curriculum Vitae – Dr. Iain Haughton

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For the past seven years, I've worked on advanced robotic manipulation, developing novel IP, authoring Dyson's first robotics paper, and spearheading the Dyson Robot Learning Lab in London.

EDUCATION

2021 - 2022	Fostering business and academic research collaborations	**EPSRC Champion**
2011 - 2015	**PhD in Particle Physics**, University of Manchester, UK	**STFC Scholarship**
2007 - 2011	**Masters in Physics**, University of Manchester, UK	**First Class Honours**

PROFESSIONAL EXPERIENCE

Dyson Robot Learning Lab — 2022 - Present
Pioneer – Lead Research Scientist — *London, UK*

Secured Dyson's backing to establish the Dyson Robot Learning Lab, where I work on enabling robots to acquire practical skills and behaviours using data-driven approaches, including:

◇ reinforcement learning   ◇ imitation learning   ◇ unsupervised representation learning

Developing and applying cutting-edge algorithms and techniques. An important aspect of our work is understanding how these approaches can be commercialised and applied to products. I manage a small team focused on this initiative.

Robotics Lab at Imperial College — 2020 - 2022
Lead Robotics Research Engineer — *London, UK*

On secondment to the Robotics Lab at Imperial College, I collaborated closely with Andrew Davison (FRS) and his team. During this time, I worked on innovative algorithms for real-time localisation, mapping and scene understanding based on deep learning and neural radiance field approaches.

Dyson Technology Limited — 2017 - 2020
Senior Research Engineer — *Malmesbury, UK*

Working as part of the future robotics team, I gained experience in all aspects of robot design and control:

◇ mechanical design   ◇ electronics and sensing   ◇ planning and control   ◇ computer vision

Postdoctoral Research Associate — 2015 - 2017
University of Manchester — *Manchester, UK*

Building on my PhD research, I secured funding to continue developing a novel particle detector for proton therapy. In partnership with Christie's Cancer Hospital, I fabricated and tested multiple prototypes.

PhD in Particle Physics — 2011 - 2015
University of Manchester – Advisor: Terry Wyatt (FRS) — *Manchester/CERN*

As a member of the ATLAS experiment, I contributed to the data analysis of the Higgs boson decay, aiding in its discovery and the subsequent Nobel Prize. Concurrently, I developed a novel particle detector.

SKILLS

Management	Skilled in Agile principles, experience managing and leading a team of engineers
Research	Published peer-reviewed papers and delivered talks across multiple disciplines
Programming	Proficient in **Python**, C++, C. Proficient in **PyTorch**, familiar with Tensorflow
Hardware	Experienced in many aspects of mechanical, electronics and sensor design
Workshop	Trained and adept in workshop tools, skills, and relevant health and safety practices