

Aaron Smiles

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Education

Queen Mary University of London

ENGD DATA-CENTRIC ENGINEERING

Sept, 2025 (EXP) London

- Awarded CDT Studentship
- The Centre for Advanced Robotics @ Queen Mary (ARQ)
- Available for internships in 2024

Quantic School of Business and Technology

EXECUTIVE MBA

Sep 2020 Online

- Awarded Scholarship
- Graduated with Distinction
- Specialisation(s): Data Science

Newcastle University

MRES DIGITAL MEDIA

Sep 2012 Newcastle

- Awarded Business Studentship

Newcastle College

BA(HONS) MUSIC ENTERPRISE

Sep 2008 Newcastle

Links

GitHub aaronlsmiles

in LinkedIn aaronlsmiles

Coursera Badges

CXL Certificates

Training

Fundamentals of Game Design • Computer Graphics • Data Science and Visualisation • Machine Learning • Statistics for A/B Testing • Digital Psychology & Behavioral Design Training • Statistical Thinking & Engineering Maths • Big Data Processing • Deep Learning

Skills/Tech Stack

Data & Code

Unity • Omniverse • C# • Croquet • Python • Anaconda • Octoparse • Excel • Git/Hub/Actions • Sklearn • PyTorch • Pandas/NumPy • Docker • FastAPI • Streamlit/Gradio • SQL • GCP

Project Mgmt/Design

Coda • JIRA • Axure • Figma • Miro

Publications & Research Projects

GhostNet: detection of Ghost nets using neural Nets

TBC 2024

TBC

99% of ocean plastic waste is below the surface. Ghost nets make up 10% of all marine litter and are the most deadly, continuing to trap and kill indiscriminately for decades after being lost or discarded. Robots can help in collecting ghost nets, but a lack of algorithms and image datasets exists for ghost net detection. We are developing a ghost net image dataset and algorithms for detecting discarded fishing nets along with entangled objects.

ATSEA: Augmented Telepresence in robot SEAFloor plastic cleanup

April 2024

IEEE OCEANS 2024, Singapore

Development of an underwater augmented telepresence system that utilises stereo vision for plastic bottle object detection in varied lighting and turbidity conditions and audiovisual aids to assist with ROV telemanipulation of ocean waste.

Implementation of a Stereo Vision System for a Mixed Reality Robot Teleoperation Simulator

Sept 2023

TAROS 2023, Cambridge, UK

Stereo vision (SV) for augmented telepresence and simulated robot telemanipulation. Integrating the SV system enables accurate distance measurement in the remote environment and precise visual alignment between the cameras' captured scene and the representation of the virtual robot.

Experience

Technology Management Consultant

FREELANCE

Mar 2017 - Present

Newcastle/London

Worked with a variety of startups in different capacities, including:

- SoundVerse (*Technical Co-Founder*):
 - Spearheaded technical conception of a suite of AI music tools and nurtured a small team of data science interns.
 - Produced dataset for pretraining text-to-music LLMs by scraping unstructured web data; trained transformer models and deployed using FastAPI, Gradio, GCP, and Docker.
 - Administered GCP, including user credentials and OAuth SSO.
- Superworld (*Product Management Consultant*):
 - Collaborated with C-Suite and cross-functional teams to develop new initiatives, inc. gamification features and an NFT marketplace, generating 40% growth in community engagement.

Founder, Managing/XR Director

SINETIC AV LTD

Jun 2011 - Feb 2017

Newcastle

- Demonstrated proficiency in systems design, mechanics, and physics by spearheading the development of an innovative VR audiovisual system and immersive virtual world, overseeing the entire process from concept to prototype (**IP valued at over £69,000**).
- Led a small agile dev team, driving the development in Unity through effective collaboration and hands-on contribution.
- Raised finance (over £40,000): grants from NBSL and Newcastle Science City, and Seed Investment through The Eaga Trust.
- Authored and published patent: **WO2016071697A1**.