Samir Rajesh

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PERSONAL STATEMENT

I'm a Creative Technologist specialising in building immersive, interactive systems that bridge real-time graphics, machine learning, and custom hardware. Through tools like Unreal Engine, Unity, TouchDesigner, and physical computing, I create everything from ML-driven social simulations to kinetic installations and experimental audio devices. My background spans full-stack ML model development, emergent narrative design in virtual environments, and tangible interactivity. Lately, my work has branched into exploring quantum decision mechanics and how they can influence agent behaviours and evolving storylines within simulations.

FEATURED PROJECTS *(further details on my Portfolio)*

Echo
- Designed and built an interactive kinetic sculpture using TouchDesigner, MediaPipe segmentation, and Arduino-controlled 49-servo array to transform live silhouettes into a dynamic fabric mirror.

Granola
- Engineered a Microcontroller-based real-time granular synthesizer with live sampling, multi-parameter grain control, and low-latency audio processing in C++.

Fugue State
- Developed a custom DCGAN pipeline for mel-spectrogram synthesis and implemented progressive neural channel ablation to generate evolving audio textures.

Sights from The Wired
- Created a zero-player Unreal Engine simulation that maps live Wi-Fi traffic into autonomous agents with opinion-dynamics social learning models.

EDUCATION

University of the Arts London, Creative Computing Institute — **December, 2025**
MSc Creative Computing — *London, UK*
- Immersive exploration of physical computing, responsive environments, machine intelligence, and critical coding, empowering creative and experiential tech development.

University of Warwick — **June, 2024**
BSc (Hons) Computer Science — *Warwick, UK*
- **Year 1:** Functional Programming, Data Structures, Computer Architecture, Web Development
- **Year 2:** Algorithms, OS/Networks, AI, Database Systems, Formal Languages & Logic
- **Year 3:** Generative AI Thesis, Machine Learning, Computer Graphics, Mobile Robotics

WORK EXPERIENCE

Orahi — **Jul. – Aug. 2021**
Machine Learning Intern — *Remote*
- Developed a Python-based LSTM time-series model to predict the timestamp of the next motion sensor event, enabling proactive monitoring of elderly residents in collaboration with client Moxiam.
- Researched and evaluated multiple predictive modelling approaches, ultimately selecting the LSTM strategy for its balance of accuracy and efficiency.

Fidelity International — **Jul. – Aug. 2019**
Software Engineering Intern — *Kronberg, Germany*
- Automated the regression testing pipeline for the company's global website using CodeceptJS and JavaScript, enhancing test repeatability and efficiency.

SKILLS & INTERESTS

- **Creative Fabrication / Tools**: Unreal Engine, Unity, TouchDesigner, Arduino/Electronics, 3D CAD
- **Programming & ML**: C/C++, C#, Python(Torch), Java, Haskell, Qiskit, Web Dev (HTML/CSS/JS)
- **Interests:** Art; Cooking; Climbing; *Radiohead*, *The Bear*