

# Aaryaman Sharma

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## Education

### University College London (UCL)

Bachelor of Science in Computer Science

Sept 2021 – June 2024

London, United Kingdom

- Graduated with First-Class Honours
- Relevant Modules: Systems Engineering, Algorithms, Object-Oriented Programming, Security, Financial Management
- Dissertation: *"Generating novel motions from a single example using Denoising Diffusion Probabilistic Models"*

## Experience

### Systems Developer Analyst

Rokos Capital Management

Sept 2024 – Present

London, United Kingdom

- Built an internal intelligence platform using React and ASP.NET Core Web API to analyze and tag industry emails and articles with LLMs; integrated Elasticsearch for fast indexing, Azure Blob Storage for large files, and SQL for time-series data like AUM and headcount
- Automated provisioning of Azure infrastructure, such as AVDs and AKS clusters, using Terraform, Helm, and Microsoft Graph API, enabling secure, consistent, and scalable cloud deployments
- Developed custom internal tools with ASP.NET Web APIs and WPF apps to automate Active Directory group management, Opsgenie on-call sync, and end-to-end workstation provisioning (permissions, window layouts, and devices)

### Software Engineer Intern

Expedia Group

June 2023 – Sept 2023

London, United Kingdom

- Engineered a Node.js-based performance analytics tool to measure core web vitals and block GitHub pull requests on degradation
- Provided actionable performance suggestions through enriched logs and visualized trends via a React dashboard

## Certifications

- ITIL Foundation Certificate - PeopleCert

## Projects

### WebGL 3D Shader

- Developed a 3D shader from scratch in GLSL, implementing ray-tracing, rasterization, and path-tracing techniques
- Enabled real-time visualization of advanced rendering methods directly in the browser
- Incorporated real-time animation to demonstrate path-tracing progress and animated ray-traced objects

### Touchless Kiosks

- Designed and developed a touchless hospital kiosk interface using MediaPipe and React, enabling hand gesture input for webpage navigation
- Implemented touchless navigation and live gesture previews, with a WebExtension frontend for seamless integration
- Demonstrated the system at Great Ormond Street Hospital and incorporated feedback to enhance accessibility features
- Enabled installation as a browser sidebar extension, showcasing live previews of user gestures and interactions

### Jellyfin Plugin

- Developed an artwork and metadata scraping plugin in C# and JavaScript for the open-source media library manager Jellyfin
- Collaborated with open-source contributors on GitHub, discussing feature requests, implementations, and managing pull requests

### Set Permutation Generator

- Built a Django-based revision tool for discrete math students to generate and analyze set permutations in Cauchy's two-line notation
- Enabled functionality to compute the order, sign, and cyclic form of permutations, providing detailed problem-solving capabilities

## Skills

**Programming Languages:** C#, JavaScript, TypeScript, Python, Java, C

**Other Technologies:** Azure, Active Directory, React, Node.js, HTML

**Development:** Kubernetes, Rancher, SQL, Docker, Figma