

# Charlotte Mackay

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<https://charlottes7.github.io/WebPortfolio/>

## Profile

Full-stack web developer with a Distinction MSc in Advanced Computer Science and a First-Class BSc in Computer Science for Games. I learn fast, adapt quickly, and enjoy understanding how systems work from end to end. My experience includes React, TypeScript, Node, Django, and full-stack project delivery, such as building interactive applications, algorithms, and backend services, demonstrating my technical capabilities.

Before entering software development, I spent several years in financial services, where I strengthened problem-solving, communication, documentation, and process-improvement skills. I am now seeking an entry-level developer role to continue learning, contribute to a team, and build reliable, user-focused products.

## Tech Stack

### Core Technologies:

React, Next.js, TypeScript, JavaScript, Node.js, Python, Django, REST APIs, HTML5, CSS3, SQL, PostgreSQL

### Testing & Tooling:

Jest, GitHub Actions, Docker, Git, VS Code, Office 365, Notion

### Additional Experience:

C++, C#, Java, PHP, WordPress, Unreal Engine, Unity, three.js, CMake, SDL, Blender

## Projects

**TJP Tours Ltd Custom WordPress Theme** (Commercial Project): Designed and developed a bespoke WordPress theme for a UK touring and merchandising company, creating custom PHP templates, flexible content fields, and responsive front-end components. Delivered a performant, accessible site with optimised imagery and fast mobile load times, showcasing my ability to produce high-quality, user-centric solutions.

**Education game in UE5** (MSc dissertation): Designed and implemented an educational puzzle game teaching basic cryptography concepts. Built quest, puzzle, and interaction systems in C++ and Blueprints.

**Puzzle Solver App:** Interactive multi-solver application using React, Web Workers, and custom algorithms. Includes modular UI components and a full Jest test suite.

**Online Payment Service:** Full-stack web platform with secure transaction workflows, authentication, and currency conversion. Built with Django, PostgreSQL, REST APIs, and Bootstrap.

**Procedural Generation Engine in UE5** (BSc dissertation): Developed a procedural generation system in C++ and Blueprints, producing replayable game worlds and automating level-design workflows.

## Experience

### Data Access & Commissions Advisor | Santander Consumer Finance UK

Jan 2023 to Mar 2025

Worked with complex data systems and regulatory processes, ensuring accuracy, compliance, and clear communication. I quickly learned new tools, analysed, and resolved cases within strict timeframes, demonstrating my reliability and attention to detail.

### Technical Admin Advisor | Santander Consumer Finance UK

Aug 2021 to Jan 2023

Handled technical queries, database lookups, and system-driven investigations. Developed analytical skills, identified process issues, and maintained high productivity and accuracy. Regularly distilled complex information into clear explanations for customers and internal teams.

**PSA Finance | Training and Projects Manager****Apr 2019 to Aug 2021**

Delivered training, documentation, and workflow improvements across the customer services department. Worked on multiple digital projects, contributing to QA testing, CRM system adoption, and user-journey improvements. Experience managing requirements, onboarding teams, and supporting system rollouts. Skills that translate directly into working on software teams.

**Customer Services Call Centre Manager | PSA Finance****Apr 2017 to Apr 2019**

Led a team in a high-volume environment, analysing data, improving processes, and making informed decisions quickly. Strengthened communication, leadership, and operational problem-solving; valuable for collaborative development work.

**Various admin and leadership roles | Santander Consumer Finance UK****Jan 2011 to Apr 2017**

Held multiple positions with increasing responsibility. Quickly learned new systems, adapted to changes, and improved processes where possible.

**Education****MSc Advanced Computer Science - Distinction**

University of Sussex (2024-2025)

**BSc Computer Science for Games – First Class Honours**

University of Brighton (2021-2024)

**Other Qualifications:**

Diploma of Higher Education – Business Management (Open University, 2016–2018)

PRINCE2 Foundation &amp; Practitioner (2014)