# Erik Bolumburu

Full-Stack Developer | Game Developer | BSc Computing Graduate

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#### **PERSONAL PROJECTS**

# Fullstack Todo List App — TypeScript/JavaScript

Built using Next.js on the frontend and Express.js with PostgreSQL on the backend. Stateless user authentication was implemented using Json Web Tokens and responsive, user-friendly interfaces were designed with TailwindCSS. Version controlled using Git and deployed using Netlify, Render and Neon, which allowed for an efficient CI/CD pipeline. Users can assign tasks to 'Task Groups' as well as set due dates.

# **Complex AI Systems in a 2D RPG Game** — **C**#, Unity

For my final year project at the University of Sussex, I designed and developed a 2D RPG Game that implemented a scalable and configurable AI system that enabled easy creation and modification of AI agents without writing code by using ScriptableObjects alongside custom built Unity editor tools. Real-time debugging tools and visualizations of systems were also developed.

# Online Payment Service — Python, Django

As part of my Web Applications and Services module, I developed an online payment service similar to PayPal using Django that allowed users to transfer and request "money" to and from other users. Currencies were automatically converted using a REST API that I had built.

### **2D Bullet Hell Game Engine** — C++, SFML

Developed a 2D bullet hell game engine that could handle tens of thousands of bullets whilst maintaining good performance by merging draw calls. Users can configure attack patterns and bullet behaviours, as well as upload custom art assets through an immediate mode GUI for easier configuration.

#### **WORK EXPERIENCE**

# **ASDA** — Pharmacy Colleague

September 2024 - December 2024

As a Pharmacy Colleague, I developed strong attention to detail by handling prescriptions and managing sensitive patient data in compliance with UK GDPR and the Data Protection Act. Working in a high-pressure, fast-paced environment, I collaborated closely with my team to ensure patients' needs were met promptly and, most importantly, accurately.

### **ASDA** — Till Operator

January 2025 - Present

Worked efficiently under pressure during busy periods, engaging in light conversation while ensuring customers were charged accurately and received excellent service.

#### **EDUCATION**

# **University Of Sussex** (2:1) — Computing for Digital Media and Games BSc

September 2022 - July 2025

Relevant Modules: Software Engineering, Web Applications and Services, Data Structures & Algorithms, Databases, Web 3D Applications

#### **ABOUT ME**

I'm a BSc graduate in 'Computing for Digital Media and Games' from the University of Sussex with a strong focus on full-stack web development. I'm eager to begin my career in the tech industry where I can contribute meaningfully in a team, solve real-world problems and continue developing my skills in building great software.

#### **TECHNICAL SKILLS**

#### Languages

JavaScript/TypeScript, C#, Python, C++ Frameworks / Engines

React, Express.js, Django, Hugo, Unity, SFML

#### Tools

Git, TailwindCSS, Bootstrap, Node.js, npm, vcpkg

# **Operating Systems**

Windows, Linux