

Dedicated software engineer with over five years of hands-on experience and a deep passion for video game design and development. Holistically-minded with an interest in continuous learning, performing cross-disciplinary work, and drawing knowledge from diverse sources. Effective communicator and collaborator skilled in developing meaningful relationships with peers and leadership.

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## EXPERIENCE

### CAREER BREAK

Edinburgh, UK & San Francisco, USA • Sept 2023 – present

Impacted by a large layoff at bigspark. Traveled to Mexico and Germany, and spent time focused on upskilling in game development and design (see projects).

### SENIOR SOFTWARE ENGINEER BIGSPARK

Edinburgh, UK • Jan 2021 – Sept 2023

*bigspark provides software consulting services focused on Big Data, AI, and FinTech solutions.*

Hired as employee #10 in a fully remote hands-on role and promoted to take on additional leadership responsibilities, managing up to three direct reports.

- Provided leadership and hands-on technical services for a bigspark client (tier 1 UK bank).
  - Managed a team of data engineers and data analysts to architect and build a hybrid cloud/on-prem data flow for 30 data sources using Snowflake and StreamSets.
  - Automated build and deployment pipelines for Scala microservices production releases at enterprise scale using TeamCity, Ansible, and AutoSys.
- Guided an intern team in development of an internal data quality tool built on Apache Spark and Amazon Deequ, with the tool later in planning to be commercialized.
- Led front-end development for serverless Vue/Nuxt web app built for use in warehouses.
- Contributed to development of a blockchain-based ticketing app (Vue/Nuxt, TypeScript) and a mental health services app.

### SOFTWARE ENGINEER PUBLICIS SAPIENT

New York, USA • June 2019 – Oct 2020

*Publicis Sapient is a global digital transformation consulting company.*

Hired after graduation and assigned to support development of Marcel, a global networking platform with 80k users, with work focused on JavaScript and Python.

- Implemented Agile and Kanban methodologies for development teams.
- Developed and launched a suite of ExpressJS microservices for Natural Language Processing to replace an expensive black-box solution.
- Engineered an analytics platform for Data Science & Analytics team using Azure Databricks and GraphQL interface.
- Wrote a QA tool in TensorFlow and Docker containers that analyzed the output of an NLP chatbot to optimize intent definitions.

*Prior experience includes development roles using Ruby on Rails, ReactJS, Java, and ActionScript.*

## PROJECTS

- **C++/OpenGL 3D Engine** ([repo](#)) - Created a Data-Oriented-Design (DOD) game engine utilizing Entity Component System (ECS) design pattern. Embedded Lua and Python scripting systems for gameplay logic. Implemented Tetris gameplay as an example.
- **Personal Website** ([repo](#)) - Designed, implemented, and deployed full PWA, SPA-modeled website with UI/UX built using Vue, Nuxt, and TypeScript. Hosted on Netlify's global CDN. Previous versions of the website include a static site hosted on Firebase ([repo](#)) and a Django site on Heroku ([repo](#)).
- **Meowtchmaker** ([repo](#), [site](#)) - Wrote a "Joined Together" card-based matchmaking game in Unity (as part of GMTK Game Jam 2021 "Joined Together" theme). Led development and project management.

## PROJECTS

### (CONTINUED)

- **Born to Die** ([repo](#), [site](#)) - Developed a board-game themed adventure game (as part of GMTK Game Jam 2022 “Roll of the Dice” theme). Led design, composed music, and programmed main gameplay loop in Unity C#.
- **Life of Prey** ([repo](#), [site](#)) - Built a hunting game in Godot/GDScript where the player is hunted (as part of GMTK Game Jam 2023 “Roles Reversed” theme). Developed procedural level generation, integrated SFX, menus, and animations.
- **Distant Stars 5e Campaign** — Designed, wrote, and ran a four-year D&D 5e campaign for three players through adventures of political intrigue and exploration in a homebrew Science-Fantasy setting. Highlights include a mini-game ‘Dungeon Wars’ inspired by Storage Wars and an underworld trial adventure based on Dante’s Inferno. Leveraged Roll20 for virtual gameplay and crafted immersive game maps using Inkarnate.
- **Boughs of Myth PF2 Campaign** — Designed, wrote, and organized a West Marches-style Pathfinder 2e campaign to explore real-world mythologies in a homebrew Mythic Fantasy setting and accommodate varying player availability. Migrated to FoundryVTT and OneNote for more advanced features like hyperlinking, scripting, and system integration.

## SKILLS

**Programming:** Bash, C/C++, CSS3/HTML5, Java, JavaScript/TypeScript, Python, Scala, SQL

**Tools:** AWS, Git, Godot, (GDScript), GraphQL,  $\LaTeX$ , Node.js, Neo4J, ReactJS, TeamCity, Unity (C#), Unreal Engine 5 (Blueprint/C++), Vue.js (Nuxt)

**Other:** Agile/Scrum, Confluence/JIRA, Kanban, Fluent English, Intermediate Spanish

## EDUCATION

### **BS, COMPUTER SCIENCE** CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO (2018)

- Completed a minor in English, including Applied Linguistics and Creative Writing.
- Completed a semester abroad at Swinburne University of Technology in Melbourne, Australia.

## INTERESTS

Playing Music: guitar, bass, piano

Tabletop Games: Dungeons & Dragons (4e/5e), Pathfinder 2e, Starfinder, Call of Cthulhu 7e, Masks, Dungeon World

Video Games: Binding of Isaac, Red Dead Redemption, Europa Universalis IV, Victoria III, Kingdom Hearts II, Hades, Fallout: New Vegas