

# Brandon Sharp

Sr. Software Engineer

## About Me

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### Experience

**11 Years** of professional programming experience.

### Skills

- Java, Kotlin, Netty
- C#, .Net, C++, RTOS
- MySQL, Entity Framework, GraphQL
- Typescript, React, CSS3, PHP, Bootstrap
- React, Lua, Python
- Raw Binary, Networking
- Mathematics, Problem Solving

## Education

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### Oakland University

Bachelor's of Computer Science

### Oakland Community College

Associate's of Software Engineering

## Contact

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### Email:

[sharpbrandon349@gmail.com](mailto:sharpbrandon349@gmail.com)

### Phone:

586 - 883 - 1145

### Portfolio:

<https://brando-s.github.io>

## Professional Experience

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### General Inspection

Independent Software Consultant

2023 - Current

Sr. Software Engineer (2021-2022)

Technical Lead (2022-2023)

C# | .Net | C++ | RTOS | Embedded Systems | Entity Framework | WinForms | WPF

GI is primarily an engineering & automation company doing work for DOD and others.

- Wrote Real-Time machine logic modules to facilitate machine automation in C++.
- Wrote complex and efficient inspection algorithms for processing sensor data in C#.
- Handled project and timeline management to hit deadlines team wide.
- Managed outside consultants and contractors to meet project deliverables.
- Commonly sought out and interviewed new team talent.
- Performed Code Reviews to maintain contributor quality

### Notable Projects:

- Designed and implemented an **entire IPC protocol** that allowed networked nodes and processes to communicate fast and efficiently no matter the data throughput.
  - State synchronization could be guaranteed with little additional engineering work on a per feature basis.
  - This system was non Real-Time\* but could be used by Real-Time processes.
  - Two implementations written separately, one in C++ and one in C#.
- Worked with multiple teams to design and implement a custom bucket elevator from scratch including machine logic, communication, and a fully custom HMI.
  - All back-end logic was written in **C++ and was Real-Time**.
  - HMI (GUI) was written in C# and communicated directly with the Real-Time logic module.
  - Machine logic implemented with **C++ coroutines**.
  - This elevator saved the company ~\$20,000 per unit.
- Designed and implemented a new fault logic module which was deployed on every product in the company's catalog in the **Real-Time C++ environment**.
  - All system faults are now tracked over time and are recorded in a relational SQL database.
  - Each fault is now fully described and documented in the system so that documentation and troubleshooting steps can be looked up by customers instead of just trained knowledgeable technicians, all within the machine HMI (C#).

### Luna Pets

Founder & Lead Engineer

2023 - Current

Typescript | React | Roblox-Ts | Flamework | Coroutines

An indie Roblox game focusing on Roleplay and Pets (unpublished)

- Written in Typescript using Roblox-Ts and Flamework from scratch

- Design extremely intuitive & engaging gameplay mechanics
- Implements highly efficient game features in Typescript.
- Responsible for managing multiple team members in all areas of the game development life cycle including engineers & artists.
- Designed and implemented aesthetic GUIs using Roact & Roact-Spring focusing on UX.

## Lunaris Entertainment

Founder & CEO | Lead Engineer

2018 - 2021

Java | Kotlin | SQL | Game Design | Event Architecture | Yourkit

An indie game studio publishing a single multiplayer game Lunaris.

- Built this company from the ground up starting with myself and growing to 6 total employees.
- Peaked at **165 Concurrent Users with over 25,000 registered accounts**.
- Wrote the entire multiplayer networking stack from scratch using Netty 4, capable of supporting over 400 concurrent users connected to a single multiplayer server.
- Responsible for managing all business operations and employees.
- Designed UX oriented GUIs.

## Dungeon Realms

Lead Gameplay Engineer | Community Manager

2017 - 2018

Java | MongoDB | Game Design | Event Architecture | Yourkit

A Massively Multiplayer RPG game made with the Minecraft Engine

- Trained internal staff members on Administrative processes, work instructions, and procedures to facilitate consistent and seamless company operations.
- Effectively handled the communications between in-house software team and consumers.
- Commonly identified issues with gaming code and implemented debugging methods to ensure all errors were alleviated.
- Provided technical and operational support for the entire organization.
- Coordinated with programming, production, art, and design teammates to create innovative and quality game content.
- Accomplished project objectives in technical design areas to facilitate smooth customer focused gameplay.

## Arkham Network

Gameplay Programmer

2015 - 2016

Java | SQL | **Game Design** | Event Architecture | YAML | JSON

A network of minigames built on the Minecraft Engine commonly hosting more than 5,000 concurrent users.

- Planned and assisted in implementing multiple games using the Bukkit framework for the popular sandbox game Minecraft.
- Assessed and tested game builds to uncover bugs and assisted in finding resolutions.
- Collaborated extensively with Community Managers to make project goals, break each into job tasks, and prioritize tasks for easier management.
- Often configured game content using the YAML markdown language.

## **Additional Experience**

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### **Gaard Tech**

Gaard Tech is an electronics company dedicated to inventing products to aid the visually and audibly impaired when navigating the world.

I am the Vice President of Engineering at Gaard Tech. It is my responsibility to lead and oversee all engineering performed by the company, consultants, and outside firms.