

SKILLS

Languages & Frameworks C, C++, C#, ASP.NET, JavaScript, TypeScript, React, HTML, CSS, Java, OpenGL
Tools git, Linux, npm, Webpack, Unity, AWS, Emacs, Visual Studio Professional

EXPERIENCE

Software Team Lead

July 2020 to Present

Vention
Montreal, QC



- Led a team in the development of industrial software applications including robot palletizers, cartesian palletizers, and CNC machines
- Developed and shipped a number of client projects which are now being used everyday in factories
- Architected and developed a framework for all future client projects
- Interacted with other teams on a daily basis to align on business goals and meet deadlines
- Planned, scoped, and organized daily tasks and long-term projects
- Individually contributed across many aspects of the codebase, from firmware to the application layer

Software Engineer I

January 2018 to June 2020

Big Huge Games
Timonium, MD



- Developed and maintained the data pipeline - from data entry, to data validation, to data publishing - for *Arcane Showdown*
- Designed, built, and maintained a live operations scheduling and publishing web application for *DomiNations*
- Implemented a localization system for *Arcane Showdown* which allowed the game to be released in different languages
- Implemented game features on all parts of the stack, including tools, Unity client, and game servers

Teaching Assistant for Intro to Video Game Design

September 2017 to December 2017

Johns Hopkins University
Baltimore, MD



- Assisted beginner programmers in the development of 2D game engines using the SDL2 library

Software Engineering Intern

May 2017 to August 2017

Big Huge Games
Timonium, MD



- Developed a tool using C# and GTK to improve the workflow of the quality assurance team for *DomiNations*
- Wrote a comprehensive user manual that explains how the tool functions for both technical and non-technical users

Software Engineering Intern

May 2016 to August 2016

Sparkypants Studios
Baltimore, MD



- Developed a profiling framework for the game systems in *Dropzone*

EDUCATION

BSc Computer Engineering at Johns Hopkins University

September 2014 to December 2017

Baltimore, MD

- 3.53 GPA (Magna Cum Laude)
- *Relevant Coursework*: Computer Graphics, Object Oriented Software Engineering, Linear Algebra, Video Game Engines and Design, Operating Systems, Data Structures, Introduction to Renewable Energy Engineering

PROJECTS

- My **self-hosted personal website** where I do small projects in WebAssembly and OpenGL: <https://matthewkosarek.xyz>
- A **game engine** that I built from scratch in C++ and OpenGL: <https://github.com/mattkae/MatteEngine>
- My **self-installing emacs configuration**: https://git.matthewkosarek.xyz/emacs_config/
- Unfinished website about **realtime physics in video games**: <https://physicsforgames.com/>