

Alex Pawelko

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Skills

Languages C++, Java, C, C#, GLSL, Kotlin, TypeScript, x86 Assembly, Lua, JavaScript, Scala, Groovy, Python, HLSL
Technologies OpenGL, Unity, Unreal, Spring, Express, Netty, MongoDB, SQL, Gradle, Jenkins, Maven, Git, Node.js

Work Experience

Eden Industries

Remote | May 2022 – Aug. 2022, Jan. 2023 – Apr. 2023

Game Programmer

- Programmed 2D and 3D graphics and shaders for upcoming titles on all major platforms in **C++** and **GLSL**.
- Implemented and debugged gameplay mechanics using **C++** within **Unreal** and in-house engines.
- Worked closely with fellow programmers, artists, QA, and publishers to make some really cool games!

Podcrash

Remote | Apr. 2021 – Jul. 2021

Software Development Lead (full time)

- Acted as development team's Scrum Master, responsible for ensuring deadlines were met.
- As part of rebrand of Podcrash+ project, programmed new user interface in **Java** and **GLSL** with **MiGLayout**.
- Wrote **Gradle** plugins in **Kotlin** as part of integrating Podcrash Play build pipeline with **Jenkins CI**, reducing release build times by **35%**.
- Developed localization system for Podcrash Play game client, including a dynamic update and caching system for translation strings with **Java**, adding less than **1ms** of overhead.

Software Developer (part time)

Remote | Aug. 2020 – Apr. 2021

- Implemented **OAuth2** single sign-on backend in **TypeScript**, **Express**, and **MongoDB** to meet user account needs of Podcrash Play project, successfully supporting all **10,000+** customer accounts on launch.
- Co-developed microservice backend architecture in **Java** and **Kotlin** with **Netty**, **Redis**, and **PostgreSQL** to support data and statistics tracking for gaming services.
- Programmed server-side game logic for game release using **Java** and **PostgreSQL**.

Projects

BetterMP

Apr. 2018 – Jul. 2021

- Gaming client for Minecraft, featuring performance optimizations, statistics, support for competitive tournaments, quality of life features, and a personal cosmetics system.
- Initially a personal project, acquired by Podcrash as Podcrash+/Play after reaching over **250K** downloads.
- Technologies: Java, OpenGL, Kotlin, C, JNI, Git, Dagger 2, OW2 ASM, Netty, TypeScript, Electron, MySQL, JOOQ

Hagnus Miemann & badchessengine

Mar. 2020 – Present

- Two of the strongest chess-playing programs ever made, ranked at **~200th** and **432nd** in the world.
- Technologies: C (BCE), Universal Chess Interface (BCE), Python (BCE), C++ (HM), X11 (HM)

Beyond Skyrim

Jul. 2017 – Aug. 2020

Implementation Developer

- Mod project for Skyrim, adding hundreds of hours of expansion-quality content with over **10M** downloads.
- Responsible for implementing and scripting gameplay mechanics.
- Worked alongside over one hundred other developers in Agile environment.
- Technologies: Papyrus, C++, C#, Git, Creation Kit, xEdit, Qt

Education & Certifications

University of Waterloo

Sept. 2021 – Apr. 2026

Candidate for Bachelor's of Mathematics, Computer Science

Faculty GPA: 97%

Oracle Certified Associate/Professional

Apr. 2017/Mar. 2018

Java SE 8 Programmer I & II