Josef Bertolini

josefbertolini.github.io | LinkedIn
joebertolini213@gmail.com | 760.423.8168 | github.com/JosefBertolini

EDUCATION

UNIV. OF CALIFORNIA, IRVINE
BS IN COMPUTER SCIENCE
Focus: Systems and Software
BS IN COMPUTER GAME SCIENCE
Focus: Programming Languages

Dean's List: 2017 - 2020
GPA: 3.74 / 4.0

LINKS

Github:// **JosefBertolini**
LinkedIn:// **Josef Bertolini**
Steam:// **J03daSchm0**
Itch.io// **joebertolini**

COURSEWORK

Databases
Networking
Compilers
Artificial Intelligence
Analog Game Design
Video Game Development
Programming Styles

SKILLS

Advanced:
C++
Intermediate:
Java • Rust • Python3
Unity Editor • Unity's C# Scripting API
Familiar:
CSS • JavaScript • Unreal Engine 4
C • MySQL

PROJECTS

RAGING ROCKS | GAMEPLAY PROGRAMMER
Feb 2020 – Present | Unity + C#
- Online PvP hyrbid of Angry Birds and W.O.R.M.S. for Android.
- I am **Designing and Implementing** controls, entity behavior, and game mechanics using Unity's C# scripting API.
- Working in a team of 5 as the **main gameplay programmer**.
- Open Source and will be released on the Play Store when finished

SEASON'S BEATINGS | GAMEPLAY PROGRAMMER
Feb 2019 - March 2019 | Unity + C#
- Top Down Beat 'em Up made in Unity in 4 weeks.
- I completely **Designed and Implemented** the weapon and combat systems of the game using Unity's C# scripting API, from controls to object interactivity to balancing.
- Worked in a team of 6 where I was the **main gameplay programmer**
- Open Source and able to download on my itch.io

CRUX COMPILER | PROGRAMMER
May 2020 - June 2020 | Java
- Wrote a compiler for a simple LLVM Language in **Java** called Crux.
- Implemented all levels of the compiler from grammar structure to x86_64 code generation using real world tools like ANTLR4.
- The languages supports function definition, recursion, control flow structures, and strong typing with static scoping and variable shadowing.

PARALLEL RASTERIZER | PROGRAMMER
May 2020 | C++ 17
- Created a Ray Tracer that can trace primitive shapes in a scene.
- Used OOP principles and features from the **C++17** standard.
- Runs with an arbitrary amount of threads in parallel and avoids data races and deadlocks and is about 70% faster than the single threaded version.

WORK EXPERIENCE

KPX ENGINEERING | ASSISTANT DATA ANALYST
June 2019 – September 2019 | Irvine, CA
- Contracted by **KPX Engineering** to assist in a project pertaining to staffing and speed of service for Taco Bell Corp.'s International branch.
- My role was to write **Python3** scripts to compound and analyze the data using the **openPyXL** library.
- The data I gathered and analyzed was then presented to the Director of Global Operations.