Josef Bertolini

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EDUCATION

University of California, Irvine — June 2021
B.S. in Computer Science & Computer Game Science — GPA: 3.74, *Cum Laude*
Relevant Coursework: Advanced C++, Systems Design, Compilers, Operating Systems, Video Game Development/Design

PROFESSIONAL EXPERIENCE

Ezoic — June 2021 - Present
Software Engineer — Golang, JavaScript
- **Maintained repositories and databases** pertaining to *LEAP Technologies*
- Worked on cron jobs, API, internal tooling, and customer-facing web apps by implementing new features and **improving performance and usability**
- Refactored data and the entire codebase to increase performance and organization, including making tools to ease development and writing documentation

University of California, Irvine — March 2021 - June 2021
Undergraduate Reader — C
- Designed assignments covering **C and topics from Systems Programming** (shells, memory allocators, etc)
- Authored Final Networking Project as a server for an auction house, supplying a custom protocol and a CLI Client
- Assisted students in **debugging code** and responded to student questions on the class forum

Major League Hacking, US DOD — October 2020 - December 2020
MLH Fellow (Software Engineering Intern) — JavaScript
- Created a web app for automating, streamlining, and securing the processing of DD2875 System Authorization Forms
- Built the **RESTful API** with **Node.js**, **Express**, and **PostgreSQL**; also composed the schema for the Database
- Utilized the **Agile development cycle** to create rapid prototypes and steadily build up the application

RELEVANT PROJECTS

Raging Rocks — Winter 2021
Unity, C#
- Senior Capstone Project, an Angry Birds Clone playable in a web browser
- Served as **the Primary Gameplay and UI programmer**, implementing most gameplay mechanics and menus
- Blueprinted and Implemented the power up system, making prototyping and tweaking a frictionless process

Chatroom Server — December 2020
C
- Developed the **server-side** of a chatroom application akin to Google Hangouts
- Used the **POSIX** thread library to make a safe and high-performance application that can support an arbitrary number of concurrent users and chatrooms
- Implemented **Thread-Safe Generic HashMap, HashSet, and Vector** data structures from scratch

Crux Compiler — April 2020 - June 2020
Java
- Wrote a compiler for a simple language, Crux, in **Java** leveraging LLVM
- Implemented a top-to-bottom compiler from grammar structure to x86_64 code generation using ANTLR4
- Developed the language to supports function definition, recursion, control flow structures, and strong typing with static scoping and variable shadowing

SKILLS AND AWARDS

Colorado Lottery 2020 Game Jam
- Team won 2nd place out of 208 participants
- Designed and Drafted a prototype for a monitor game to be played in bars and restaurants across Colorado

Programming Languages and Tools
- Proficient: C++, C, Unity, Golang, JavaScript
- Familiar: C#, Java, Python
- Environments: All Major OS's, CLI, Most IDE Debuggers, Vim

Interpersonal Skills
- Sociable, Adaptable to New Environments, Team Player
- Quick Learner, Clear Communicator, Passionate