

Josef Bertolini

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SKILLS

Programming Languages and Tools

- Proficient: C++, C, Golang
- Intermediate: PowerShell, JavaScript, Java, Python
- Familiar: C#, Rust, Vue.js
- Platforms: SQL Databases, Azure Cloud, Git
- Environments: Windows/Mac/Linux, Command Line

Interpersonal

- Sociable & Adaptable
- Quick & Eager Learner
- Supportive Team Member
- Independent Worker
- Clear Communicator

PROFESSIONAL EXPERIENCE

Mircosoft

May 2022 - April 2024

Software Development Engineer - C++, PowerShell

- Maintained a **critical** internal Azure VM Extension running on **2.5+ million machines**
- **Led development** of adding support for 2 new platforms, more configuration options, & automatic migration
- **Created the extension's testing infrastructure**, which included monitors, alerts, & dashboards
- Crushed bugs & implemented new features, which simplified onboarding, improved reliability, & eased troubleshooting
- Worked closely with customers to triage bugs & logic errors & provide quick mitigations for bugs & logic errors
- Wrote documentation & TSG's for my team & customers for using & debugging the extension
- Refactored & **modernized** the legacy code base making development **less error-prone**

Ezoic, Inc.

June 2021 - April 2022

Software Engineer - Go, JavaScript, PHP

- **Solely maintained** core repositories & databases for *LEAP Technologies* within 4 weeks of starting
- **Improved performance & reliability** of *LEAP's* crons, APIs, tools, & customer-facing web apps by up to **5x**
- Collaborated with other teams to integrate the APIs across multiple products, adding value throughout the company
- Implemented feedback from customers & coworkers to increase usability for the product's stakeholders
- Conducted code reviews & debugging sessions with coworkers to ensure software remained high quality
- Onboarded & mentored new hires, getting them familiar with company culture & codebases within 3 weeks

University of California, Irvine

March 2021 - June 2021

Teaching Staff, Grader - C, Python

- **Designed** 5 assignments covering topics from C & Systems Programming, such as shells & memory allocators
- Assisted students in **debugging code** & responded to student questions on the class forum
- Authored the Student Networking Project as a paralleled auctioning server with a **custom networking protocol**
- Implemented a C client & the scaffolding code for said project & scripts to simulate multiple users when grading

PROJECTS

Manga Packager - Go, JavaScript

- Simple server that scrapes websites & packages manga pages into a format readable on an iPhone or iPad
- Created a **mobile-friendly web-page** to proxy searching for manga titles & directly download to the device
- Designed the server to use RAM-only procedures to avoid issues with storing copyrighted material to disc

Raging Rocks - Unity, C#

- Senior Capstone Project, an Angry Birds clone playable in a web browser
- Served as **the Primary Gameplay & UI programmer**, implementing most gameplay mechanics & menus
- Blueprinted & implemented the power up system, making prototyping & tweaking a frictionless process

Chatroom Server - C

- Developed the server-side of a direct messaging & chatroom application similar to IRC
- Used **POSIX** threads to make a performant server that supports an arbitrary number of concurrent users & rooms
- Implemented **thread-safe generic HashMap, HashSet, & ArrayList** data structures from scratch

Compiler - Java

- Wrote a compiler for a simple programming language with **LLVM**
- Developed a **full stack compiler** from grammar structure to x86_64 code generation using ANTLR4
- Implemented functions, recursion, **short-circuiting control flow**, strong typing, static scoping, & shadowing

EDUCATION

University of California, Irvine

B.S. in Computer Science & B.S. in Computer Game Science, *Cum Laude*