Miles Benton

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EDUCATION

California State University, Chico

BS Computer Science GPA: 3.7

Chico, CA Aug 2021 - (May 2024)

Experience

Association for Computing Machinery, Chico Chapter

Chico, CA

Vice President

Apr 2022 - Present

- Grew club from 4 active members to over 30.
- Created custom tooling to host programming competitions and weekly meetings.
- Helped organize school-wide programming competition.

Projects

chicoacm.org TypeScript, NextJS, Rust, WebAssembly, Docker, SQLite https://github.com/kil0meters/acm A competitive programming website with a focus on deterministic performance analysis.

- Safely executes arbitrary with minimal overhead by compiling code to WebAssembly.
- Rust backend split across multiple Docker containers hosted on DigitalOcean.
- Deterministic code timings allowing for competitive leaderboards.

SketchNexus TypeScript, SolidJS, WebSockets

https://sketchnexus.com

An online competitive drawing website featuring realtime communication via WebSockets.

- Elegant interface written in **TypeScript** that works on any screen size.
- Game viewer allowing users to analyze mistakes in their play.
- Noise-based position evaluation function to grade match outcomes.

Snail++ Rust, WebAssembly, TypeScript

https://github.com/kil0meters/snailplusplus

An incremental game simulating the generation and solving of thousands of mazes in real time using highly optimized code.

- Combined Rust/WebAssembly and TypeScript architecture optimized for performance.
- Employed intensive JavaScript garbage collector optimizations to deliver consistent framerates even when simulating tens of thousands of mazes.

TECHNICAL SKILLS

Programming Languages:

Rust, C++, WebAssembly, TypeScript, SQL, Python

Frameworks and Libraries:

React, NextJS, SolidJS, Actix

Tools:

Git, Linux, Docker, SQLite, JWT, OAuth, CI/CD

Awards

Dean's List

California State University, Chico 2021/2022/2023

Chico Programming Competition

Second Place

Association for Computing Machinery Apr 2022

Hackathon

Association for Computing Machinery- Women

https://github.com/kil0meters/ranker

Apr 2023