

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
Vice President

Chico, CA
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 Univeristy, Chico
2021/2022/2023

Chico Programming Competition
Second Place

Association for Computing Machinery
Apr 2022

Hackathon

Association for Computing Machinery- Women
Apr 2023

<https://github.com/kil0meters/ranker>