Ben Tomlin btomlin@ucsd.edu (510) 362-5617 bentomlin.dev Linkedin GitHub

## **DUCATION**

- Third year Computer Science (B.S.) major at UC San Diego (3.8 GPA, expected graduation in September 2024)
- Relevant coursework:
  - Data Structures/Algorithms in Java, C, C++, and Assembly
  - Software Engineering and Web Development (Agile, HTML/CSS/JS fundamentals)

## X PROJECTS

Minesweeper React Next.js Tailwind MySQL GitHub Site Sep - Oct 2023

- Used React and Typescript with Immer Reducers to create a robust and performant Minesweeper game
- Allowed players to switch between difficulties and save their high scores using the localStorage API
- Leveraged Prisma and Next.js Server Actions with MySQL to create a global leaderboard with end-to-end typesafety

donequick SvelteKit Firebase realtime GitHub Site Aug - Sep 2023

- Used Firestore (noSQL) to create a lists app with optimistic updates, reordering, infinite nesting, keyboard shortcuts, and real time collaboration
- Used Firebase **Auth** to sync user data to the cloud and let users invite each other by email
- Leveraged Firebase Security Rules to support secure client-side database queries and list sharing

MCSR Ranked Stats SvelteKit Tailwind data vis GitHub Site Mar - Jun 2023

- Consumed a REST API to make interactive data visualizations that let competitive Minecraft speedrunners (MCSR)
  understand and share their matches
- Used Tailwind in combination with JavaScript media queries to offer a highly responsive UI
- Wrote a number of algorithms that parse and summarize raw match data to allow for more intuitive visualizations
- Serves 400+ visitors and 4,000+ page views per month

UCSD Courses SvelteKit Python Scraping GitHub Site GitHub Site Jan - Mar 2023

- Scraped 6,888 UC San Diego course descriptions across 82 department pages, as well as 179 major codes & names
- Leveraged Python/BeautifulSoup to parse, clean, and interlink the courses, and to generate Svelte markup
- Designed and created a new course catalog that lets users search for departments, share links to course descriptions, hover over major codes for details, and click any mention of a course to jump to its description

Joyspring Godot game dev GitHub Site 2020 - 2021

- Lead the development of a 2D platformer "Joyspring" over the course of 2 years
- Created a complex finite state machine to control player movement mechanics; used Perlin noise and
  exponential decay to create custom visual effects; helped design 50+ levels; integrated custom music, SFX, and
  artwork from team members
- Received 50,000+ downloads and 70+ positive reviews on Steam
- Used Joyspring to teach the Game Development Club in person and online as Vice President of the club

PiggyBank Figma UX design Figma File Prototype Aug - Oct 2023

- Worked with a team to design and prototype a bill-splitting mobile app targeted towards college students
- Executed the entire design process, performing user research, visual design, prototyping, user testing, and iteration
- Leveraged Figma components and styles to foster productive workflows and fast iterations

## • SKILLS

