

## Benson Zheng

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## EDUCATION

<b>Accelerated M.S. in Computer Science (4+1 Program, Incoming)</b>	<b>Fall 2026 – Expected May 2027</b>
<b>B.S. in Computer Science, GPA: 3.9/4.00</b>	<b>May 2026</b>
<b>Relevant Courses:</b> Data Structures, Algorithms, Web Programming, Software Engineering, Computer Vision, AI, Computer Networks	

## TECHNICAL SKILLS

### Computer Skills:

**Languages:** JavaScript, TypeScript, Python, HTML, CSS, C, C++

**Frameworks:** React, React Native, Node.js, Express.js, Flask

**Tools/Tech:** Supabase, Firebase, MongoDB, Clerk

## PROJECTS

### FishiesSimulation | SFML, C++

- Built a 2D aquarium game simulation using modern C++ and object-oriented design.
- Implemented species-driven AI behavior, where fish movement varies by size, speed, activity level, and water-column dwelling.
- Integrated SFML graphics, resource loading, and frame-based update loops for smooth on-screen behavior.

### Invoice Management System | Next.js, Flask, Python, TypeScript, Supabase

- Built a file upload experience for business invoices, including drag-and-drop, validation, previewing, and error handling.
- Developed responsive UI flows enabling users to upload, view, and manage invoices across devices.
- Integrated Supabase authentication for secure login and session management.
- Streamlined client-side data handling and state management for smooth interaction and faster page performance.
- Collaborated with backend engineers to test invoice ingestion APIs and maintain consistent data formats between frontend and server.

### Chatter | React, Firebase, TypeScript

- Built a full-featured real-time chat platform with messaging, message editing, replies, file uploads, and presence indicators.
- Optimized chat rendering with virtualization to maintain smooth scrolling across large message lists.
- Integrated Firebase Authentication and Supabase file storage for secure user experience.
- Live demo: [chatter-s3t1.vercel.app](https://chatter-s3t1.vercel.app)

### Stargazer | React, TypeScript, MongoDB, Clerk

- Designed and implemented a UI for discovering and tracking celestial events with real-time updates.
- Managed state, data fetching, error handling, and REST integration with backend services.
- Live demo: [stargazer320.vercel.app](https://stargazer320.vercel.app)

## EXPERIENCE

### Research Assistant - UMass Amherst | Amherst, MA

**Oct 2025 - Dec 2025**

- Assisted research exploring bias in large language models used for code generation.
- Tested prompt-based interventions and analyzed output patterns to detect and mitigate provider bias.

### Asian American Center of Excellence and Engagement - Program Intern | Lowell, MA

**Sep 2023 - Dec 2023**

- Organized and managed student programs and workshops accessible to all students, with a focus on engaging Asian American participants.
- Developed communication materials and supported event operations to increase student engagement.