

Ray Shen

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EDUCATION

Northeastern University

Boston, MA

B.S. in Computer Science, Minor in Mathematics — GPA: 3.73/4.0

May 2025 – May 2028

- **Coursework:** Algorithms and Data, Computer Systems, Introduction to Database Design, Program Design and Implementation 1 & 2, Discrete Structures, Theory of Computation, Foundations of Cybersecurity, Linear Algebra

WORK EXPERIENCE

Hudl

Lincoln, NE → Remote

Software Engineering Intern (Full-time Summer, Part-time Fall)

May 2026 – Present

- Shipped Hudl's real-time messaging platform to 7M+ directors, coaches, athletes, and parents, contributing across both system architecture and the core product surface within a single summer production launch cycle.
- Owned the messaging product's frontend end to end, delivering 30+ features built with React, TypeScript, SCSS, and Stream.io while partnering closely with stakeholders, engineers, and design counterparts on architecture decisions.
- Implemented net-new full-stack channel membership features, including adding and removing members and leaving channels, spanning C# and .NET backend services and GraphQL resolvers through to the React client.

Northeastern Student Government Association

Boston, MA

Software Engineer

September 2025 – December 2025

- Migrated the SGA website from Squarespace to a custom React application serving 38,000+ students and faculty, replacing a rigid hosted platform with full control over layout, routing, styling, and content.
- Designed a custom PostgreSQL relational schema to store page configurations and site content, enabling non-technical SGA staff to publish and revise pages without requiring any ongoing developer involvement.
- Developed customizable, responsive drag-and-drop page components with React Puck, wiring each component into the backend configuration API so that saved layouts persist and render correctly for every visitor.

Prometheus

Remote

Software Engineer, Pro Bono

October 2025 – December 2025

- Delivered the web presence for a nonprofit providing services to survivors of domestic violence, contributing roughly 60 hours pro bono alongside a small volunteer engineering team across a single academic semester.
- Created and implemented an intake questionnaire that matches survivors to relevant community services based on their responses, reducing the time and effort required to locate appropriate local support.
- Deployed the live site on Vercel to 250+ survivors, prioritizing accessibility and survivor-conscious frontend design throughout, from color contrast and keyboard navigation to clear, legible page structure.

PROJECTS

Plant

NUACM Hackathon, Education Track Winner

Next.js, React, TypeScript, Firebase, Gemini, Python

October 2025

- Built a course planner that generates personalized recommendations from AI insights and parsed PDF transcripts, mapping each student's completed coursework against their outstanding degree requirements.
- Wrote a Python scraping pipeline to populate and maintain a Firestore database of 87,000+ university courses, normalizing inconsistent catalog listings into a single, consistently queryable schema.
- Integrated a drag-and-drop scheduling interface with difficulty-balancing algorithms that distribute workload evenly across semesters and surface prerequisite conflicts before a student commits to a plan.

EcoJustice

Hack the Nest, Grand Prize Winner

Next.js, React, Google Maps API, Gemini

April 2025

- Visualized EPA, CDC, and Census data on an interactive analytics map built with Next.js and the Google Maps API, layering several federal datasets into a single navigable county-level view of the country.
- Mapped Social Vulnerability Index scores against industrial site locations to surface environmental disparities by county, making patterns of concentrated exposure legible at a glance to any first-time visitor.
- Applied Gemini to automate personalized, data-driven advocacy letters that cite county-specific figures and direct users toward current contact details for their own local and federal elected representatives.

SKILLS

Languages & Databases: Java, TypeScript, JavaScript, Python, C#, SQL, PostgreSQL, Firestore

Frameworks & Libraries: React, Next.js, Node.js, Express, .NET, GraphQL, Tailwind CSS, SCSS, React Puck, Stream.io

Cloud, Data & Tools: Firebase, Supabase, Google Maps API, Docker, Linux, Vercel, Git, Claude Code, Gemini API