

Henry Zeng

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EDUCATION

Illinois Institute of Technology - Dual Degree Program

Chicago, IL

Master of Information Technology and Management, GPA: 4.00

Expected May 2026

Bachelor of Information Technology and Management, GPA: 3.7

- Relevant Coursework: Data Structures and Algorithms, Full-Stack Web Development, Service-Oriented Architectures, Web Systems Integration

TECHNICAL SKILLS

Programming Languages: Dart, Go, HTML/CSS, Java, JavaScript/TypeScript, Python, SQL

Frameworks and Libraries: Express.js, Flutter, FastAPI, GSAP, Motion, Next.js, React, Svelte, TailwindCSS, Vue.js

Data and Distributed Systems: Firebase, MongoDB, MySQL, MS SQL Server, PostgreSQL, Redis

Cloud and DevOps: AWS, Azure, Docker, Git, GitHub, GitHub Actions, Linux

PROJECT EXPERIENCE

Interactive Portfolio Website | *SvelteKit, GSAP - Personal Project*

September 2025 - January 2026

- Engineered a high-performance personal portfolio using SvelteKit 5 with server-side rendering and automatic code splitting, achieving 95+ Lighthouse performance scores through optimized asset delivery and lazy-loaded GSAP animations across 6 interactive sections
- Implemented comprehensive theming system with dark/light mode toggle using CSS custom properties and localStorage persistence, featuring WCAG-compliant color contrast ratios and prefers-reduced-motion support for enhanced accessibility
- Architected responsive component library with 9 modular Svelte components including animated skill proficiency bars, project showcase with hover effects, and FormSpree-integrated contact form with client-side validation
- Established automated CI/CD pipeline with GitHub Actions for Vercel deployment, integrated Google Analytics event tracking for user engagement metrics, and optimized SEO with OpenGraph meta tags and schema.org structured data

Campus Market Exchange | *Firebase, React, TypeScript, TailwindCSS - Course Project*

August 2025 - December 2025

- Architected a full-stack peer-to-peer food marketplace serving IIT students with React 19 and TypeScript, implementing 63 service functions across 5 Firestore collections with real-time order management and payment processing
- Optimized database performance by designing 11 composite Firestore indexes and implementing hybrid state management with TanStack Query caching and Zustand stores, reducing unnecessary API calls by 70%
- Engineered real-time push notifications using Firebase Cloud Messaging with service workers, infinite scroll pagination for listings, and optimistic UI updates across favorites and cart features to improve user experience
- Established security-first architecture with Firestore security rules, email verification via Firebase Auth, client-side rate limiting, and XSS prevention; validated with 430+ passing tests across unit, integration, and E2E suites

Task Management Platform | *Next.js, PostgreSQL - Personal Project*

April 2024 - May 2024

- Engineered a production-ready full-stack task management application using Next.js 15 with App Router and React 19, implementing GitHub OAuth authentication via NextAuth.js v5 and deploying to Vercel with continuous integration
- Architected a relational PostgreSQL database with Drizzle ORM featuring 5 normalized tables, many-to-many relationships for task labels, and type-safe schema definitions with cascade delete constraints to ensure data integrity
- Developed 7 RESTful API endpoints with advanced query capabilities including multi-parameter filtering, dynamic sorting, and search functionality, handling session-based authorization and optimistic UI updates across 50+ TypeScript files
- Built a component-driven UI with 15+ reusable Radix UI components, implementing dark mode theming, Framer Motion animations, real-time task statistics dashboard, and fully responsive mobile-first design with Tailwind CSS