

Ivan Zheng

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EDUCATION

Worcester Polytechnic Institute, Worcester, MA
Bachelor of Science in **Computer Science & Data Science**

Expected May 2026
GPA: 3.94/4.00

Honors & Awards: Dean's List 2022-2025, Charles O. Thompson Scholar, Presidential Scholarship

Relevant Coursework: Artificial Intelligence, Operating Systems, Software Engineering, Data Structures and Algorithms, Object-Oriented Design Concepts, Systems Programming Concepts, Database Systems, Data Science I-III

PROFESSIONAL EXPERIENCE

PMKS+, Worcester, MA

August 2025 – Present

Full Stack Software Developer

- **Modernized legacy PMKS codebase** and migrated old features from old engine to new
- Developed **interactive visualization tools** using Typescript for students building planar mechanisms
- Developed UI features which enhance user interaction by **20%**
- Migrated front-end features to a responsive web interface
- Implemented **URL sharing and processing** with encryption and decryption, increasing website usage by **50%**

Data Annotation, New York, NY

June 2024 – Present

AI Trainer

- **Refined algorithms** that power artificial intelligence systems
- Analyzed **1000** data points used in training artificial intelligence
- Thoroughly tested **110** artificial intelligence systems for defiance
- Conducted over **250 corrections** of coding errors within models
- Assisted in training over **20 models** with countless variations

ACADEMIC PROJECTS

github.com/ivanzheng123

Brigham & Woman's Hospital Website

March 2025 – May 2025

Full Stack Software Developer

- Collaborated with Brigham & Woman's Hospital to launch a production-ready website
- Engineered end-to-end features using the **PERN** (PostgreSQL, Express, React, Node.js) stack with Typescript
- Build responsive, professional UIs utilizing **TailwindCSS** and Shadcn components increasing efficiency by **30%**
- Implemented RESTful API with Fetch API to enable real-time backend communication
- Optimized database operations by leveraging **Prisma ORM**, cutting query development time by **40%**
- Developed fully functioning speech to text and speech to speech navigation improving accessibility for all users
- Reviewed Pull Requests through GitHub, improving workflow by **50%**
- Conducted research on various APIs such as Webkit Speech API and implemented features to the program
- Utilized the **Agile Methodology** to organize user stories, scrums, and sprints, optimizing workflow by **15%**

Designing Interactive Experiences and Visualization Promoting Data Literacy

August 2025 – Present

Full Stack Software Engineer & AI Specialist

- Developed a **full-stack application** which aims to evaluate and develop data literacy skills
- Integrated **AI features** to assist in assessment of skills
- Developed user-friendly functionality to reVISit software
- Developed a fully integrated front and back end

Interdisciplinary Qualifying Project

October 2024 – December 2024

Team Member

- Collaborated with Hangzhou Hengwei Information technology to examine the roles and impacts of AI
- Conducted **70** case studies on the top 5 recurring perceptions and concerns of AI
- Strategically planned **resource allocation** problems associated with AI, reducing inefficiencies by **10%**
- Assisted in building **intelligent tutoring systems** that give personalized recommendations
- Used **statistical modeling and regression models** on 1000 data points to derive actionable insights
- Identified **3 high-risk pain points** where AI adoption faces significant challenges
- Streamlined workload within the company by **25%** increasing productivity

Arduino-Based Remote Wake-on-LAN Controller

June 2024 – August 2024

Project Lead

- Developed IoT-based remote PC wake system using WoL packets
- Programmed an **ESP8266 microcontroller** in C to send WoL packets to my specific IP address
- Configured a secure **web server** for remote connection including password protection
- Implemented networking concepts such as MAC addressing and port forwarding
- Troubleshooted microcontroller configuration and programming bugs

Evolutionary Music

September 2023 – June 2024

Project Lead

- Conducted research on evolutionary computation and genetic based algorithms
- Designed an **evolutionary algorithm** by introducing genetics and mutations

SKILLS

- **Programming:** Typescript, PERN stack (Postgres, Express, React, Node.js), Java, Python, C, PL/SQL, R, C#, TailwindCSS, Shadcn, Prisma ORM, Git, Angular
- **APIs:** OpenAI API, Mailgun API, Webkit Speech API, Elevenlabs API
- **Applications:** Word (Advanced), PowerPoint (Advanced), Excel (Proficient), VS Code (Proficient)
- **Language:** English (native), Mandarin (fluent)

INTERESTS

Reading, Writing, Esports Games, Traveling, Cooking, Puzzles, Computer Hardware