# CHENSHUO-JUSTIN ZHU

## Technical Skills

Programming Languages: JavaScript/TypeScript, C/C++, Java, REST API, JWT, Python, C#, Bash, SQL, HTML 5, CSS 3, PHP, Racket

Frameworks: React.js, Next.js, Tailwind CSS, Node.js, Spring Boot, Spring MVC, Spring Data, JUnit

Developer Tools: VS code, Cursor, Spring Tool Suite 4, Postman, Git, Unity, Eclipse, IntelliJ

Database/Platform/Operating Systems: MySQL, PostgreSQL, Drizzle ORM, Apache Tomcat, Linux

## **Experiences**

Beyz AI Sep 2024 – present

Full Stack Developer (part-time)

- Contributed to key features for Beyz AI's GPT-based real-time interview copilot using **Next.js**, enhancing user interaction and performance.
- Achieved a 20% reduction in token costs by optimizing compression of user background data through prompt engineering. Utilized OpenAI's AI SDK to enable efficient GPT integration.
- Implemented a dynamic prompt versioning mechanism with **TypeScript**, **Drizzle ORM**, and **PostgreSQL**, ensuring seamless updates, alignment across database and API configurations and delivering the latest prompts for an enhanced user experience.

## Information Systems & Technology Department, University of Waterloo

Sep 2024 - Dec 2024

Presentation Technologies Support Technician

- Built a web application with **PHP** and **CSS**, integrating an interactive **SVG** seating plan and **PostgreSQL** database to manage attendee data, improving seat assignment efficiency by **75**%.
- Delivered technical support across 90% of campus classrooms for maintaining and troubleshooting AV equipment, resolving 200+ issues monthly. Designed 3D-printed mic-testing tools to improve sound quality assessments in Board & Senate rooms in Needles Hall.

## Huadian Energy Development Co. Ltd

Jan 2024 - May 2024

 $Full\ Stack\ Developer\ Intern$ 

- Designed and developed the **Supplier Management module** within a Procurement and Billing Management System.
- Created a responsive web interface using **React.js** and **JavaScript**, ensuring cross-browser compatibility and enhancing user experience for **3000+** users.
- Built backend services with Java/Spring Boot, integrated with PostgreSQL for database management, and utilized JSON and REST API for efficient data interchange.

# **Projects**

# Portfolio Website | Website Z, GitHub Z

 $\mathbf{Jun}\ \mathbf{2024} - \mathbf{Sep}\ \mathbf{2024}$ 

- Designed a responsive, single-page portfolio website using **React.js**, providing dynamic navigation and a downloadable resume feature. Deployed on **Vercel** to support continuous integration, enhancing professional visibility.
- Applied **Tailwind CSS** for a minimalist design and integrated **Framer Motion** to create engaging interactive animations, elevating the overall user experience.

#### Sorcery - Card Game

May 2024 - Aug 2024

- $\bullet$  Created a collectible card game with a team of three using C++, implementing turn-based mechanics and optimizing game logic for smooth gameplay
- Utilized the Factory design pattern and Decorator design pattern in C++ to efficiently create diverse card types and abilities, collaborating with teammates to develop cohesive player actions and game logic.

#### Interactive Museum Guide Website | Website 7, GitHub

Sep 2022 – Jun 2023

• Constructed an interactive museum guide website using **HTML**, **CSS**, and **JavaScript**, enabling users to explore world-renowned museums with features like an creative world-map interface and a magnifying tool for artifact viewing, enhancing user engagement.

#### Island Adventure Game

Sep 2022 - Dec 2022

- Developed an immersive open-world island shooting game using **Unity Engine**.
- Designed a FPS mechanic in C# and crafted a detailed natural environment using Universal Render Pipeline.

#### Education

## University of Waterloo

Sep. 2023 - Present

Waterloo, ON

Candidate: Bachelor of Computer Science

• Awarded President's Scholarship of Distinction