

# Gordon Zhang

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## TECHNICAL SKILLS

**Languages:** JavaScript, Typescript, Python, HTML, CSS, SQL  
**Frameworks:** React, NodeJS, Flask, TailwindCSS, VueJS, Bootstrap, ExpressJS  
**Developer Tools:** Git, Docker, MySQL, Google Cloud, Azure, AWS, Kubernetes, Postman  
**Libraries:** NumPy, Pandas, Lodash, OpenCV

## EXPERIENCE

### Full-stack Developer

Sept 2024 – Present

*Blndspt Labs*

*Remote*

- Directed development team through app life cycle using **React**, **NodeJS**, and **JavaScript** to prioritize scalability, resulting in a **284%** increase in user traffic
- Optimized checkout security by integrating **RESTful** APIs with Stripe API, reducing checkout errors by **49%**
- Delivered **20+** client requested features by collaborating with **7** stakeholders, deploying prototype to production in **6** weeks
- Deployed containerized applications using **Docker** on **AWS EC2**, optimizing CI/CD pipelines to automate deployment
- Developed cart, checkout, and order systems with React to streamline transactions, reducing checkout time by **46%**
- Refactored legacy front-end codebase with **Git**, reducing bundle size by **32%** and improving load times by **1.8s**

### Front-end Developer

Jan 2023 – May 2024

*Artez Coding Society*

*Vancouver, BC*

- Developed a web portal using **React** to track student progress, reducing administrative workload by **42%**
- Improved responsiveness and optimized DOM rendering using **HTML**, **CSS**, and **JavaScript**, increasing site traffic by **30%**
- Revamped outdated lesson plan repository, implementing **Git** best practices to improve maintainability for **25+** contributors
- Designed **55** RESTful API and React puzzles in JavaScript, leading to a **212%** increase in student completion rates
- Managed **end-to-end** lifecycle of **15** web features, from planning and development to deployment, ensuring timely delivery

## PROJECTS

**WhaleBeing** 🐳 | *JavaScript, React, Python, Flask, Azure, HTML, TailwindCSS, Mapbox API*

### DeltaHacks 1st Place

- Developed an AI-powered marine prediction web app with **React** and **Flask** to prevent **20,000** annual whale-ship collisions
- Programmed **RESTful** APIs with **JavaScript** to serve whale distribution and risk assessment data to the front end
- Led front-end development by adding a heat-map with Mapbox API to display year-round whale locations
- Implemented a ship strike risk-analysis algorithm with Python and integrated Searoutes API to dynamically display routes
- Deployed backend on **Azure** using CI/CD pipelines with Azure DevOps for automated deployment with **99.9%** uptime

**ShakespeareAI** 🐼 | *JavaScript, React, NodeJS, Firebase, Google Cloud, HTML, CSS, OpenAI API*

- Engineered an AI note-taking web app with **React** and **NodeJS** to quiz users on their handwritten notes in real-time
- Integrated Cloud Vision API and OpenAI API to analyze notes, using **RESTful** APIs to serve responses to the front end
- Developed Auth system by integrating **Firebase** REST APIS for user sign-up and password reset
- Programmed AutoSave feature for data retrieval using Firestore Database achieving **28%** lower data retrieval latency
- Optimized cost efficiency, reducing **87%** of unnecessary Firebase writes by integrating a debounce Lodash delay mechanism

**SoccerMetrics** 🏈 | *Typescript, React, Python, Flask, Docker, Kubernetes, Google Cloud, HTML, CSS, MediaPipe API*

### Geesehacks Winner

- Built a soccer analysis web app with **React**, **Flask**, and **Typescript** that analyzes uploaded videos to improve kicking form
- Extracted pose landmarks with MediaPipe API for biomechanical metrics and Ultralytics YOLOv8 for ball detection
- Deployed application with **Docker** to containerize services, managing them with **Kubernetes** to host on **Google Cloud**
- Integrated OpenAI API by developing **RESTful APIs** to provide personalized feedback and calculate users' shot score

**BiggerPicture** 🖼️ | *Javascript, VueJS, MySQL, Flask, AWS, HTML, CSS*

- Built an interactive photo mosaic web app using **VueJS** and **Flask**, allowing for synchronized back-end collaboration
- Managed a **MySQL** database for real-time user updates using indexes, joins, and transactions, reducing query response time
- Implemented WebSockets to enable real-time communication between clients and the server for instant updates
- Integrated **Amazon S3** for scalable storage of uploaded images, enabling efficient retrieval during live collaboration

**LooLooLoo** 🐼 | *Typescript, React, NodeJS, Docker, HTML, CSS*

### Hack the North Winner

- Developed a full-stack indoor navigation web app with a **React** and **NodeJS** to direct users to water fountains
- Engineered shortest path algorithm using **Typescript** for a 3D indoor map to show users real-time path to destination
- Containerized the backend using **Docker**, enabling seamless deployment and consistent runtime environments

## EDUCATION

**University of Waterloo**

Waterloo, ON

*Candidate for BAsC in Computer Engineering, Honours, Co-op*