Sean Zhang

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SKILLS

Languages:	Python, C, C++, JavaScript, TypeScript
Tools & Frameworks:	React.js, Node.js, Next.js, Docker, MongoDB

EDUCATION

University of Waterloo   Sep 2019 - Apr 2025
Bachelor of Computer Science

EXPERIENCE

Vivid Seats   Sep 2023 - Dec 2023
Software Engineer Intern

- Improved Google web vitals scores on over **65,000** pages by identifying and resolving unexpected layout shifts on vividseats.com⊗ using **Next.js** and **TypeScript**.
  - Resultant search rank improvement saw gross order value increase by over **$3 million**.
- Reviewed and implemented unit tests using **Jest** and **React Testing Library**, increasing test coverage by **1%**.

Cynorix   Jan 2023 - Apr 2023
Software Developer Intern

- Reduced component line count by **over 50%** by refactoring class based components into functional components using **React.js**.
- Configured and deployed user authentication using **Firebase** and **Google Auth API**.
- Converted a **68,000** line JQuery project to React.js and **Bootstrap** in **3 weeks**.

Lambdus   Sep 2021 - Aug 2022
Software Engineer and Co-founder

- Architected a web app using **Next.js**, **Express.js**, and **MongoDB** to make animating more accessible to individual animators.
- Containerized application using **Docker**, enforcing consistent deployment behaviour across different environments.
- Pitched idea in front of a panel of venture capitalists and judges with varying technical backgrounds at the **semi-finals** of Velocity $5k pitch competition.

Genesys   May 2020 - Aug 2020
Quality Assurance Intern

- Created and deployed a script to bulk create Jira tasks using **Python** and **Jira REST API** to reduce time taken to create tickets by **over 70%**.
- Aggregated and visualized useful Jira Metrics through React.js and Flask which identified management bottlenecks, saving over 4 hours per Jira ticket.

PROJECTS

Research Assistant	Improving Monte Carlo integration for rendering applications.
Ray Tracing	Implemented a renderer from scratch based on ReSTIR paper using **Rust**.
Path Tracing ⊗	Created a small path-tracer using Metal GPU compute shaders and **C++**.