

Yuxi Wang

SDK Development | 3D Visualization

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🌐 <https://yuxi.dev/resume>
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Profile

Experienced developer specializing in 3D graphics and interactive web applications, with expertise in Three.js, WebGL, and modern rendering techniques. Skilled in building intuitive React-based interfaces for complex 3D operations, performance optimization, and creating elegant solutions to challenging spatial problems. Over 9 years of experience developing web applications with a focus on 3D visualization and delivering exceptional user experiences for technical applications.

Skills

Frameworks & Libraries

- React (6 yrs), WebComponents (2 yrs), Svelte (1 yr)
- Three.js (5 yrs), d3.js (1 yr), prosemirror (2 yrs)
- RxJS, SWR, Tailwindcss

Tools

- Git, Webpack, Rollup, Babel, esbuild
- Vercel, Node.js, Express, MongoDB
- Jest, Cypress, React testing library
- Cursor Agent, Claude Code

Languages

- JavaScript/TypeScript (10 yrs)
- HTML & CSS (10 yrs)
- C# (2 yrs)

Experience

Mappedin

Staff Software Developer

Oct 2023 - Now

- Spearheaded complete redesign of V6 SDK rendering system, implementing state-driven declarative design, deterministic rendering pipeline, shader optimization for GPU-based operations, and high-performance Text3D API with SDF font rendering - delivering 70% performance improvement and enabling major enterprise deals
- Enabled multi-million dollar enterprise contracts through rapid delivery of mission-critical SDK solutions for major international airports and large commercial venues, ranging from emergency bug fixes to rebuilding entire React Native SDK from scratch with 88% test coverage within one-month deadline.
- Solved complex 3D spatial fitting problems achieving pixel-perfect geometry alignment, resolved depth buffer issues for transparent image rendering, implemented pan bounds calculation algorithms for dynamic map sizing, and optimized altitude offset calculations for stacked map visual separation - saving thousands of hours of customer support time
- Led and coached cross-functional engineering team while collaborating with product, sales, and engineering stakeholders to translate business requirements into technical solutions, fostering a supportive high-velocity culture that consistently exceeded delivery goals
- Established comprehensive testing framework for 3D visualization applications with 70%+ coverage, implementing development best practices that delivered enterprise-grade reliability and reduced production incidents while enabling confident feature delivery

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Curvenote(YC)

Senior Software Developer

May 2021 - Sep 2022

- Entrusted with building the core product as the first hire, defining frontend standards and best practices.
- Utilized TypeScript, React, and ProseMirror for development.
- Delivered innovative features and optimizing architecture for effective maintenance and functionality.
- Implemented full-stack features including OAuth integration, UI programming, and rich text editor functionalities.
- Boosted application performance, facilitating seamless usage with larger documents and broadening customer reach.

- Led end-to-end testing initiatives and contributed to monorepo migration for streamlined code maintenance and testing.

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Sequent

Software Developer

June 2016 - May 2021

- Led the transition from WebComponents to a more robust React & Redux architecture.
- Appointed to the visualization team and spearheaded the revamp of the existing visualization library using TypeScript and Three.js.
- Achieved a 4x frame rate increase for large data models, significantly improving the application's performance and capabilities.
- Integrated various emerging technologies to ensure architectural scalability, accommodating the company's growth and evolving needs.
- Mentored junior team members and established coding standards for frontend development.

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Freelance Developer

RDS DataViz

Data Visualization Developer

Sep 2019 - Jun 2020

- Expanded technical skills by independently creating a robust data visualization library using TypeScript and d3.js to meet stringent feature and performance specifications.

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Agile Surface Engineering Lab

SoD-Toolkit

Software Developer Intern, Research Assistant

June 2014 - June 2016

- Developed and maintained the SoD-Toolkit, a web-based toolkit for prototyping multi-sensor, multi-device environments.
- Designed and implemented 2D and 3D visualizer. Utilized html5 canvas and Unity to provide visual demonstration of server state in realtime.
- Developed and maintained client library in various platforms including C#, Obj-C, JavaScript, Android, and Unity.
- Designed server architecture for real-time state control and geometric computation.
- Integrated the toolkit with various hardware technologies, including MS Kinect, Google Tango, and Leap Motion.

ERWear

Software Developer, Researcher

Sep 2015 - Jun 2016

- Conducted undergraduate research on enhancing emergency responders' situational awareness through wearable technology.
- Utilized IDEO methods for design refinement and user feedback analysis.
- Developed a functional prototype integrating glass and wrist-based wearable hardware.

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Education

University of Calgary

Computer Science

Bachelor's Degree

Sep 2012 - Jun 2016

Graduated from University of Calgary Bachelor of Science in Computer Science Internship Program.

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