

## Summary

Experienced developer with a passion for researching and creating elegant solutions to complex problems. Skilled in UI programming, data visualization, and performance optimization, with over 7 years of experience building web applications. Proficient in JavaScript, React, and the Web platform. Committed to delivering exceptional user experiences.

## Skills

### Frameworks & Libraries

- React/Redux (5 yrs), WebComponents (2 yrs), Svelte (1 yr)
- Three.js (3 yrs), d3.js (1 yr), prosemirror (2 yrs)
- RxJS, SWR

### Tools

- Git, Webpack, Rollup, Babel
- Vercel, Node.js, Express, MongoDB
- Jest, Cypress, React testing library, Github Actions

### Languages

- JavaScript/TypeScript (8 yrs)
- HTML & CSS (8 yrs)
- C# (2 yrs)

## Projects

### Curvenote(YC)

May 2021 - Sep 2022

Senior Software Developer

First hire at Curvenote, I am responsible for building the core product.

- Delivering innovative features and optimizing architecture for effective maintenance and functionality.
- Implemented full-stack features including authentication, user workflow, 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.

### Seequent

June 2016 - May 2021

Software Developer

As one of the first hires at 3ptsience, I started my career working on frontend UI using WebComponents. Then, I proposed and led frontend architecture revamp to React & Redux architecture. After that, I joined the visualization team as a key contributor to revamping the visualization library with TypeScript and Three.js. During the time I worked there, I set standards for frontend code quality and mentored team members.

- Oversaw the maintenance and enhancement of a 3D data visualization library, improving rendering performance and visual presentation.
- Achieved significant performance increase by expanding renderable model size capacity, quadrupling frame rate for large data models, and reducing the First Input Delay.
- Developed and maintained features for data primitives including points, lines, and meshes.
- Led a comprehensive redesign of the frontend UI application, enhancing user experience, performance, and architecture.
- Engineered collaboration features and customized visualization widgets for an enhanced interactive user experience.
- Integrated various emerging technologies to enable architectural scalability alongside team growth.
- Provided mentorship and training to new team members.

### ERWear - Agile Surface Engineering Lab

September 2015 - June 2016

Researcher, Software Developer

ERWear is my undergraduate research project. My responsibility was to design a system leveraging glass and wrist-based wearable technology to enhance emergency responders' situational awareness.

- Utilized IDEO methods for user feedback analysis and design refinement of a wearable tech-based emergency response system.
- Designed and developed functional prototype with glass and wrist based wearable hardware.
- Integrated wearable application with spatial-aware communication system.

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## SoD-Toolkit - Agile Surface Engineering Lab

*June 2014 - June 2016*

*Software Developer Intern, Research Assistant*

Developer and maintainer of SoD-Toolkit. A web based toolkit for interactively prototyping and developing multi-sensor, multi-device environments.

- Designed and developed node server with socket management, geometric computation, and real-time state control.
- Integrated toolkit with MS Kinect, Google Tango, Leap Motion, iBeacon, wearables, and mobile devices. Utilized client libraries and the hardware domain specific features.
- Developed and maintained client library in various platforms including C#, Obj-C, JavaScript, Android, and Unity.
- Designed and implemented 2D and 3D visualizer. Utilized html5 canvas and Unity to provide visual demonstration of server state in realtime.
- Designed and implemented multi-Kinect fusion technique which greatly expanded reach of spatial awareness tracking.

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## Education

### Computer Science - University of Calgary

*September 2012 - June 2016*

*Bachelor's Degree*

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

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