

Joel Gallant

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Driven, detail oriented, self taught and candid software developer - with a passion for making complex systems simple. I work hard without sacrificing quality.

Skills

Advanced

- TypeScript
- Node.js (Koa)
- React (w/ MobX)
- Docker
- Rust

Intermediate

- C++11/14/17
- Java (some Kotlin)
- CSS / LESS / PostCSS
- PostgreSQL
- OpenCV

Familiar

- React Native
- SQL Server
- Swift
- Python
- Vue.js

Tools

- CI (GitLab, CircleCI)
- Version Control (git)
- Unit Testing (jest)
- vim / tmux / fish
- Chrome Dev Tools

- Linux sysadmin
- Kubernetes
- GitLab
- perf, rr, gdb, etc.
- JIRA

- XCode
- Visual Studio
- Windows 7+
- Solidworks

Experience

Cruise

Senior Software Engineer (December 2020 - Present)

Working on software assistance to self-driving cars!

Launchcode

Software Developer (July 2018 - October 2020)

Developing new solutions for our clients, internal tools and the PatronScan ID scanner. It consisted of a mixture of experience in backends (NodeJS, Koa, Postgres, MS SQL, etc.), frontends (React, Mobx, TypeScript), system software (Rust, C++, OpenCV, Tokio), devops and tooling.

I led a few teams and projects, with a variety of clients. The role included a fair amount of mentorship as well.

Renoworks

Full Stack Software Developer (Jan 2017 - July 2018)

Developing software for frontend (jQuery, Vue.js, ES6, JavaScript) and backend (ASP.net, express, koa, J2EE) portions of Renoworks' core products. I have done work on the core rendering engine, iOS ative apps, API development, internal tools, build systems and much more.

Most of my experience was migrating legacy code, data and infrastructure to a more maintainable platform. As part of a new team in the company, we took control of a complex web application, integrations, mobile apps, etc. This work accelerated the company's rate of growth and continues to push the business in the right direction.

Draganfly / Trace

Computer Vision Technologist (Apr 2015 - Dec 2016)

Responsible for developing, testing and integrating embedded Linux computer vision tracking software. Working with the state-of-the art short term general object trackers, high speed detection, machine learning classification and gesture control. Advancing techniques and integrating them into a low power system to control cameras and UAVs.

Tracking software developed controls an autonomous UAV, target assists in public safety situations, and is adaptable to any type of target. It is general purpose and capable of many different tracking tasks that are complex and real-time.

FIRST Robotics

FIRST Senior Mentor - 2014-2015

Supporting, recruiting and mentoring students & coaches for FIRST Robotics teams in Alberta.

My work had an impact on over 750 students across Alberta, giving them an opportunity to work hands-on with technology and engineering. I developed curriculum for high school robotics, electronics and programming. This work also allowed me to give talks and lessons about crucial elements of FIRST robotics.

Achievements & Projects

Patronscan ID Scanner Evolution

I developed a rewrite of the main Patronscan application logic for ID verification. The stack consisted of Rust, C++, OpenCV, gRPC, Node.js, Postgres and more.

SOL Health Care Platform

I led development of a health care facility management platform that empowers employees and managers. It has advanced scheduling rules and ties into payroll systems.

Dura Quotes Pipeline System

I built a back-office web application for a custom fabrication company in Calgary. It included a responsive PWA web app to manage their quotes, job tracking, invoices, timesheets and more.

Renoworks Surfaces

I helped rebuild one of Renoworks' core products, migrating much of the code into a flexible multi-deployment platform.

FIRST Robotics

I was a founding student member and later on, mentor, for Team 4334. In 2014, I led the team to World Championship semi-finals, and the Chairman's award.

- Chairman's award for broad impact in and out of STEM
- Over 15 official awards within 6 years of competing
- World division winner, the highest stage of competition

Education

Bishop Carroll Self-Directed High School

2014

