Joel Gallant

Cell: 403-826-5534 Email: joel@joelgallant.me

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

Skills	 Advanced Javascript & Typescript Node (koa and express) React (w/ MobX) Docker (w/ some Kubernete CI & many build systems 	Intermediate • C++11/14/17 • Rust • Java es) • CSS / LESS / SASS • Postgres • OpenCV	Familiar gRPC React Native Python Vue.js SQL Server Swift
Tools	 Version Control (git) Unit Testing (gtest, jest) vim / tmux / zsh	Linux sysadminJIRAGitlab	Windows 7/8/10SolidworksXCode, Visual Studio

perf, strace, etc.

Launchcode

Chrome Dev Tools, ndb

Software Developer (July 2018 - Present)

Experience

Developing new software solutions for our clients, internal tools and the PatronScan platform. I'm involved in a lot of ongoing projects and am constantly evolving our products. I have a mixture of experience in backends (NodeJS, Koa, Objection, Postgres, MS SQL, etc.), frontends (React, Mobx, Typescript), system software (Rust, C++, OpenCV, Tokio), devops and tooling.

I lead engineering for a couple teams and projects. Our clients vary quite a bit and every project is new and different. The role includes a fair amount of mentorship as well.

Renoworks

Full Stack Software Developer (Jan 2017 - July 2018)

Developing software for front-end (jQuery, vue.js, es6, typescript) and back-end (ASP, express, koa, J2EE) portions of Renoworks' core products. I have done work on the core rendering engine, iOS webview & native apps, API development, internal tools, build systems (webpack, and a custom deployment system) and much more.

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

The biggest challenge of this job was developing a sustainable platform with new, flexible requirements, while continuing to deliver projects for clients. The platform is flexible to deploy many different applications, with one single code base. This is all aided by the build system and infrastructure that I played a critical role in creating.

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Experience

Draganfly UAV & 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've developed the main Patronscan application logic (scanning engine). This was part of a rewriting effort, that consists of Rust, C++ (ffi), OpenCV, gRPC, tokio, Node.js.

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 led development of a business 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.

Trace Visual Intelligence

I joined the software team for Trace to create a realtime object tracker onboard our own quadcopters. My work outperformed the best available options in accuracy and performance, at the time.

FIRST Robotics

I was a founding student member and continue to mentor with <u>Team 4334</u>. In 2014, I led the team to a World Championship division semi-final, and the Chairman's award.

- Chairman's award for broad inpact 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

High School Diploma, 2014

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