

Justin Barca

Frontend-Forward Web Developer

About Me

Versatile full-stack web developer specializing in front-end frameworks, administrative user interfaces, and graphically-oriented JavaScript applications (SVG vector graphics, 3D web applications)

Contact Information

Location: Kitchener, ON
Email: justinbarca@gmail.com
Phone: (705) 868-8195

Skills & Expertise

☆☆☆ ACCUSTOMED

Javascript, Typescript, React, a11y, i18n, SVG, Material-UI, HTML, CSS, custom elements, mobx + mobx-state-tree, Karma, Mocha, Gitlab CI/CD

☆☆ FAMILIAR

node.js, VueJS, three.js, EmberJS, Redux, Backbone.js, jQuery

★ ACQUAINTED

Python, Flask, Blender, Docker, AngularJS (1x), Angular

Professional Experience

Senior Software Developer at Camis Inc.

October 2021–July 2022

- Principle developer of Sidekick, a mobile React PWA supporting the monitoring and enforcement of public parks' access, leveraging redux, GraphQL, jest, storybook and Material UI
- Supported the maintenance and refinement of Angular application that supports booking of campsites across North America

Front-End Engineer at Points

September 2017–June 2020

- Maintained legacy (1x Angular) white-label storefront framework
- Supported the prototyping and development of an entity-component framework for building customized online storefronts using React and WC3 custom elements
- Authored and updated extensive unit/integration/e2e tests (Karma, Mocha, Selenium)
- Worked within rigorous procedures for resource deployment, at times monitoring and debugging production issues
- Played an engaged role in a variety of agile procedures (Scrum, Kanban)

Web Developer at G Adventures

February 2017–April 2017

- Contributed to the development of internal tools for managing complex data structures that coordinate a vast array of worldwide group tourism trips using webpack, ReactJS, Redux, react-sagas, and redux-forms
- Tested components and their integration using enzyme + Jest

Web Developer (permanent) at Kiwi Wearables

October 2015–January 2017

- Refactored, debugged and improved a dashboard application (React + reflux + webpack) for the maintenance of users, companies, and applications that the company serviced through its B2B API service
- Enabled real-time analysis, recording, and editing of accelerometer/gyroscope sensor data
- Maintained a RESTful API (node.js + express.js) for the purposes of persisting data associated with app providers, their subscribers, and the motion data they maintain
- Constructed client-facing REST API (node.js + express.js) to facilitate activity tracking analysis on submitted data
- Built web tools using Backbone.js to support the creation and maintenance of motion data variants for use in AI training
- Sole developer of Pepper.ai, a Messenger API chatbot whose aim was to promote physical and emotional well-being through mood, sleep, and activity tracking

Web Developer at Extreme Measures

December 2014–February 2016

- Implemented an internal system of document generation and editing which transformed data about clients and their floor plan assets into professional floor plan booklet deliverables
- Built repositionable and resizable components to present SVG documents, allowing the user to change the zoom or alter clip paths applied to the images with SnapSVG
- Incorporated a CSS theme editor which allowed inline modification of an SVG region's styles
- Managed complex data hierarchy and application state, modeling book templates, books, pages, style themes, document regions, and spatial transformations using EmberJS with Ember Data
- Developed a service for generating PDFs from a given book using CasperJS


Web Developer (contract) at Kiwi Wearables

June 2014–February 2015

- Created a developer tools portal that enabled developers to record, detect, and store wearable technology gestures using Javascript, Node.js, Backbone.js
- Created a bluetooth-enabled Chrome App that displayed the orientation of a sensor device in 3D using three.js along with real-time graphs and dials

Education

B. Sc. – Software Engineering

 Carleton University

completed 3 of 4 year program

Learned fundamentals of object-oriented and functional programming, in Java, C / C++, perl, scheme

Related Personal Works

Digital Maker/Inventor as [Playful Geometer](#)

(2008 – present)

- Invented a line of continually evolving flat-pack polyhedral lanterns
- Wrote python scripts to generate SVG nets from shape-based templates + per-shape collection of face images (legacy)
- Designed packaging and instructions for all products using SVG scripting + Inkscape
- Established e-commerce site and maintained social media platforms to promote products (retired)
- Created captivating art installation experiences at many festivals and special events
- Developed an app enabling users to interactively design and build custom-skinned 3D models (on [github](#) with accompanying [web demo](#)) using the following stack: Typescript, React, mobx-state-tree, Electron, Material UI, Github Actions