Renoir Boulanger

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SUMMARY

Experienced full-stack developer, I have a broad and deep understanding of the Open Web stack, Frontend and Server Techniques to build, deploy and maintain Web sites that scale.

- Polyglot programmer; TypeScript, ECMAScript, JavaScript, PHP, C#, GNU Make, Python
- Experience in Infrastructure As Code with Salt Stack, Vagrant, Ansible, Puppet, Bash
- Contributor to open-source projects such as Nuxt.js, Alpine Linux, MediaWiki (i.e. Wikipedia.com) and Mozilla Firefox Accounts (i.e. Firefox's profile sign-in system)
- Maintained Web Hosting architecture for high-visibility sites, including W3C's WebPlatform.org, and the World Wide Web's 25th anniversary Site
- Experience with Cloud IaaS, Containers, and maintenance of continuous deployment systems

EXPERIENCE

GoTo Inc. – *Staff Software Developer*

January 2021 - Present

My position is as "*Staff Software Developer*" where I help other software developers with my experience with Web Standards, Accessibility and how to maintain and bundle Frontend code to optimize re-usability and reliability. I am contributing to the architecture of GoTo next generation micro-frontend "Application Shell" from which other experiences (e.g. meeting, contacts management, etc) runs in. The code I work with is with microsoft/fast, lit-html, React and TypeScript.

- Help other software developers with my experience with Web Standards, Accessibility and how to maintain and bundle Frontend code to optimize re-usability and reliability
- Contribute to the architecture of GoTo next generation micro-frontend "Application Shell" from which other experiences (e.g. meeting, contacts management, etc) runs in.
- Given training to leverage CustomEvents and leverage them as a way of communicating application state changes and allow us to decouple from rest of application
- Experimentation with more recent lit-html versions leveraging WebComponents Community Group "Context API" to allow decoupling UI changes from the web framework

RBC Royal Bank of Canada Inc. – *Senior Full Stack Developer*

March 2020 - December 2020

I was a Senior Full-Stack Frontend developer to the RBC Omni platform (Online Business Banking). My daily tasks were about making implementation proposals driven by the requirements and agenda set by product owners and business analysists. My focus was mostly about building scalable and re-usable modules by collaborating with other production teams, including the design system/platform team. The code I wrote waas targetted for Angular 8 with TypeScript 3.4.

SKILLS

Programming
PHP, C#, VCL, Bash, Python

Web Development Languages
TypeScript, JavaScript, ECMAScript, HTML/CSS

PHP Frameworks
Symfony, Slim, Composer/Packagist

Frontend Frameworks
Nuxt.js, Vue.js, Koa.js, Element UI, Backbone.js, Marionette.js, Angular

Frontend Testing Frameworks
Jest, CodeceptJS, Playwright, AVA, Mocha, Jasmine

Web Platform
HTML/CSS Architecture, Bundling, Transpilation, Deployment, Promises, Polyfills, Adaptive, Responsive

Web Operations
Configuration Management, Service Monitoring, Self-Healing event handlers, Salt Stack, Node.js, ElasticSearch, Prometheus, Redis, Varnish, Docker Swarm, Dockerflow

EDUCATION

Université de Sherbrooke, CeFTI
2nd Cycle Program Diploma, Software Engineering
June 2024

- Make implementation proposals driven by the requirements and agenda set by product owners and business analysts.
- Build scalable and re-usable modules by collaborating with other production teams, including the design system/platform team.
- Re-Implement and improve link manager to legacy application system. So that the HTML templates contains a "link id", and how it dynamically creates an hidden form and properly redirects to legacy HTML views.
- Written extensive onboarding documentation taking into account how to properly and automatically adjust developer tools at every password change. Avoiding popular "ignore this error" and rather use corporate signed TLS certificate right

CGI Inc. – *Senior Technical Consultant (Lead Frontend)*
May 2017 - February 2020
At CGI, I worked as a Technical Lead as part of the Global Technology Operations - Software Development Team. My role is to analyze and contribute to the development of a Cloud Management Platform named Unify360 at the User Interface level (e.g. Web, Email, Dashboard…), focusing on the aspects related to UI such as Internationalization (e.g. translation), Localization (e.g. Date, Number formatting) from how to read data from services, to assembling view patterns. Unify360 is composed by many "micro-services" where each component has a specific tasks. For example; Authentication, Session validation, Forms, Rendering Views, etc. Services can be written in Perl, PHP, .Net Core, ASP.Net/IIS, or Go.
- Lead the team that work and coach for writing code with tests, making self-contained and re-usable packages
- Implement prototype for a modern Unify360 Frontend using Vue.js, Nuxt.js, TypeScript, GraphQL, Koa.js and planned how to migrate all views into new platform effectively replacing code written in Perl and PHP 5.3, and also replacing HTML partial Microservice;
- Research and Technical Requirements Analysis for modernizing Unify360 UI layer. Made comparison between React, Angular, Vue.js and different UI Component Libraries such as Google Material Design, Element UI, Vuetify

AlayaCare – *Senior Software Developer*
November 2016 - May 2017
Software development, Simplification of Docker Compose multi-container build to be more automated and reliable build for each service and internal service modules, also worked on deployment scripts leveraging GNU Make, Ansible, and Frontend Development with Vue.js and Yii 3 and Symfony 2

Colloquial / Betastream – *Systems Delivery Blueprinting Specialist (remote)*
January 2016 - June 2016
At Colloquial, my role was to introduce and coach the team Continuous Delivery and Code release, and deployment system. I was part of a geographically distributed Web Development and IT team ("Betastream") working on projects for Colloquial and other partner projects. My responsibilities were to review, plan, and build a next-generation infrastructure and deployment system for the project production pipeline.
- Released a Cloud Orchestration solution using Salt Stack, running on Amazon AWS, Google Cloud Platform and Microsoft Azure, where we can manage automatically Web Applications, deployment levels, build steps and

Udemy
Nuxt.js - Vue.js on Steroids
Understanding TypeScript

EggHead.io
Use Types Effectively in TypeScript
Up and Running with TypeScript
Get Started with ElasticSearch
Build a Server Rendered Vue.js App with Nuxt and Vuex

VueMastery
Real World Vue.js
Mastering Vuex
Next-Level Vue
Scaling Vue with Nuxt.js
Advanced Components

Pearson Vue
Zend Certified Engineer PHP 5.3
July 2013

McGill University
CEEN-421-761 - English in Written Communication Contexts
CMSC-000-781 - Foundations of Mathematics
CMSC-101-771 - College Algebra and Functions
December 2013

University of Montreal
Web Accessibility (WCAG 1) at the Nazareth & Louis Braille institute
July 2008

IBM
IBM WebSphere DataPower SOA Appliance
July 2007

Canadian Armed Forces
Basic training at Royal Military College Saint-Jean

dependencies consistently;
- Introduced HashiCorp Vagrant workflow to automatically manage Web Developer's PHP setup using VirtualBox and Canonical Ubuntu Linux 16.04 LTS. By doing so, every developer got the same Web Server setup as in production;
- Introduced automated packaging for every WordPress projects, by leveraging Composer's archive feature. The automated build process would first pull all dependencies, run code-quality linters, and if successful, create a Zip archive. By merging on master on Bitbucket would generate an archive, and the continuous-delivery system make all web server nodes to download the archive, extract its contents in a folder. Deploying a release would be changing the "live" symbolic to the newly extracted package;
- Introduced advanced Varnish caching with Fastly. Created HashiCorp Vagrant workspace network (e.g. one Web Server VM, one Database server, one Varnish VM) to allow working on Varnish VCL caching scripts.

CAE – *Systems Delivery Blueprinting Specialist*
March 2016 - June 2016
At CAE, my role was to introduce and coach the team Continuous Delivery and Code release, and deployment system. I was working on-site as a part-time contract and been asked to analyze and document for recommending an Open-Source real-time monitoring solution. During that period, I compared Prometheus, Heka, Ganglia, Grafana, ElasticSearch Kibana, and other TimeSeries aggregation and visualization systems. The ideal system had to take into account the air-tight networking policies which included corporate TLS certificate, and deployment targets would often be inaccessible to the Internet.
- Introduced a method to maintain network of Virtual Machines with HashiCorp Vagrant leveraging VirtualBox private networking
- Created a "poor man" configuration management using Bash 4 as a way to avoid using text files.

Mozilla – *Subject Matter Expert Compatibility Data Project (remote)*
August 2015 - January 2016
At Mozilla, my role was to provide an oversight of the development and participate in software architecture discussions as a subject matter expert on the Mozilla Developer Network Compatibility Data project. The Compatibility Data are what feeds developer.mozilla.org documentation pages telling developers if the feature is supported in a given Web Browser. My involvement was around communicating with various stakeholders about the requirements and features for the system.
- Created a client-side DataTable rendering system with Vanilla JavaScript
- Prototyped a file-based Compatibility data storage

W3C/MIT – *Developer Operations Engineer (i.e. "DevOps")*
August 2013 - August 2015
At W3C, my role was to maintain stability, improve features, strengthen the infrastructure of the site, and act as a technical liaison with Open-source communities. The WebPlatform Docs project was meant to become an independent Web Developer documentation site maintained by an international community of contributors, sponsored by Adobe, Apple, DreamHost, Fastly, Facebook, Google, Intel, Mozilla, Microsoft, Nokia, and Opera.
- Converted content and history from MediaWiki into Static site generators and Git (2015)
- Improved Infrastructure deployment code so that any service could be rebuilt

Private (Basic), assigned to Sherbrooke 714th Communication Squadron Wired and wireless communication and information systems (Introductory training) Winter warfare training
January 2000

PUBLICATIONS
- *« Techniques pour déployer WordPress de façon consistante et les rendre résilients »*, WordCamp Montréal 2016
  Talk given at WordCamp Montréal 2016

- *"Packaging for easier redeployment"*, DevOps Montréal
  Presented at two events, DevOps Montréal, PHP Québec.

- *Santachè, A. "Mobile development using web technologies focusing on games"*, ACM, ISBN 978-1-4503-2559-2
  Participated in chapters related to "Markup architecture", "Events" and "Web Storage"

- *Kumar, J. "Apache Solr PHP Integration"*, Pakt Publishing, ISBN 9781782164920
  Book review

- *« Comment évaluer le niveau de qualité d'un site web selon les techniques d'intégration web d'actualité. »*, Web à Québec 2013
  Presented at two conferences; «Montreal WebIn», and «Web à Québec» (WAQ)

systematically (2015)
- Implemented a self-healing monitoring (2015)
- Designed and Implemented Single Sign-On solution using OAuth2 (2014)
- Designed and built a Web Browser feature compatibility table system for documentation pages (2014)
- Migrated the infrastructure to different providers along with Operating-System upgrades (2013, 2015)

Ericsson – *Web Developer*
February 2012 - June 2013
The goal of the project at Ericsson was to create a server on demand provision portal managing cloud computing clusters hosted in data centers geographically dispersed. My role was to architect, build and lead a Web-based virtualization provisioning portal. A key feature I worked on was to allow users to initiate VMs from any data centers, on any cloud provider platforms.

Evocatio Solutions technologiques Inc. – *Senior Web Developer, Co-Founder*
January 2010 - March 2012
As a Web Developer and Co-Founder, my role was to lead and architect all Web Development work related to the Frontend stack. I would be in touch with Graphic Designers and Project Managers to create Valid HTML/CSS markup that reflects the designs, and to work on all Web Browsers of the moment. My work would take Adobe Photoshop and PDFs document and create HTML/CSS Static style guides (minimal JavaScript, no backend) to create CSS pattern libraries. As a Co-Founder, I had the authority to validate and review code quality when using HTML/CSS patterns generated by the Web Back-end Stack (Symfony 1, Symfony 2, Zend Framework, ASP.NET).
- Participated in a major Web site rewrite for UDA.ca from .NET into PHP with Symfony1.x, responsible of two search-engine modules and HTML/CSS patterns libraries (2010-2012)
- Created complex e-mail delivery systems to handle bounces at the server level and participated in the creation of a Web-based frontend (2011)
- Created an early "Offline first" HTML5 news reader for iPad (2010)
- Participated in building and maintaining a major public-facing Web application that had been deployed in many cities around the globe (2010-2012)

Groupe Informatique TechSolCom Inc. – *Web Developer*
October 2006 - August 2009
My role was to maintain the company corporate image on the web, maintain their Web site, and participate in projects run internally as a Web developer. Projects I've been involved in were written in Java, included a proprietary CI server Web Application for IBM WebSphere that was intended to be competitor to Jenkins and CruiseControl of the time, I've contributed to Inventory management application (Namminik) and a few other internal R&D experiments.
- Contributed to many projects as Frontend Developer
- Participated in maintaining company internal network, testing DataPower blade, Virtualized servers on bare metal, and web hosting infrastructure
- Built a monitoring service using the SNMP protocol, centralized syslog server, and configured a Nagios monitoring service (2009)
- Participated in making many Web applications as a Frontend developer including an inventory Web Application and a Continuous Delivery system

Câble Axion Digitel – *Web Developer*

October 2005 - November 2006

My role was to rewrite the corporate website, maintain internal applications and answer to level-2 support calls from subscribers.

INEXIS Solution web Inc. – *Web Developer, President*

February 2002 - November 2006

INEXIS Solution web Inc., was a one-man web development service provider firm I founded to serve graphic design agencies in the region of the Eastern Townships. Services included managing own private Web hosting infrastructure and building HTML/CSS pages based on PDF files provided by graphic designers, creating e-mail templates.