Mike Belanger
Fullstack Developer

He/Him
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PROFESSIONAL SUMMARY

I'm a full-stack developer with 8 years of experience. I've used Ruby on Rails and React for most of my professional web development. I've used some Python and Scala during my data-processing at Weather Telematics. My current areas of interest are full-stack development in the context of artificial intelligence and geospatial applications.

SKILLS

Backend: Docker, Node.js, Podman, Ruby on Rails

Frontend: Angular, Bootstrap, JavaScript, MaterialUI, OpenLayers, React, Responsive Web Design, TypeScript, Webcomponents

Other: Agile Software Development, Blender, Git, Local-first, Puppeteer, Rust, Webassembly

WORK EXPERIENCE

Kongsberg Geospatial Inc.
Software Developer
Ottawa • 04/2024 - Present
Full-time

- Obtained "Secret" security clearance.
- Developed and deployed a React-based web interface for classified defense projects.
- Works on React-based frontends which work alongside Openlayers
- Modified Node.js-based backends to interface with various microservices.

IMRSV Data Labs Inc.
Software Developer
Ottawa, Ontario, Canada • 12/2020 - 08/2023
Full-time

- Obtained Canadian security clearance.
- Created **React**-based web interfaces for various classified **defense** projects, and many **proof-of-concepts.** These were done in a high-paced environment with little supervision or guidance. Much of this work was in creating geospatial visualizations using **Leaflet** and **OpenLayers.**
- Scoped out the implementation of various geospatial related pages.
- Added to existing interfaces for a **React Native** mobile application. This application helped retail workers manage customers.
- Worked with server-side technologies in both **Python** and **Node**.
- **Communicated** with various **stake-holders** about new technologies and requirements, such as external sub-contractors and service-providers.

Weather Telematics Inc.   Ottawa, Canada Area • 07/2017 - 11/2017
Junior Developer

- Analyzed weather and traffic data using **Apache Spark**, a big data processing and analytic engine using both **Python** and **Scala** scripts which would allow drivers to receive real time notifications if a specific set of conditions were met.
- Used **QGIS** to segment specific Autobahn routes into **GPS** points that were all 200 meters apart. These points ultimately determined where road weather conditions would be modelled. This modelling was done for Daimler AG for a **proof of concept**.
- Implemented additional functionality for Weather Telematics' web portal. The portal was a **Single Page Application** (SPA) built using **Angular** which showcased weather predictions and road conditions on a map using the **Leaflet** display library.

Fluent Solutions Inc.   Ottawa, Canada Area • 11/2017 - 10/2018
Junior Developer

- Worked **directly with customers** to solve their specific requirements.
- Took ownership of entire **Ruby on Rails** projects.
- Defined **project scope** for newer, significant customer requirements and additions.
- Developed and improved websites running **Ruby on Rails**, **Bootstrap**, **Material Design**, and **Angular.js**. Implemented business logic that met the required usage cases using a TDD approach.
- Used **server-side rendered** HTML for most pages.
- Debugged ActionCable (Ruby on Rails' **Websocket**) API.
- Wrote front-end code with Javascript, **Typescript** and occasionally Coffeescript.
- Designed UI mockup work using Inkscape and Pixelmator.

theSpace Ottawa   Ottawa, Canada Area • 05/2017 - 03/2020
Workshop Facilitator

- Taught Graphics Design Workshops using Blender, Krita, Goxel and MagicaVoxel as well as other open-source tools.
- Created learning material and adapted my workshops for young adults diagnosed with mental disabilities.

CPA Plus   Ottawa, Canada Area • 06/2016 - 05/2017
Marketing Researcher

- Researches potential company clients.
- Wrote advertisements and video scripts.
- Authored promotional scripts and prospective client research using Google Docs.

MD Physician Services   Ottawa, Canada Area • 08/2014 - 09/2015
Filing Administrator (Term position)

- Ensured invoices, payroll information and other important documents were filed and/or scanned.

- Proposed, and authored a Python-based scripting system for the automation of document sorting.

Children at Risk   Ottawa, Canada Area • 07/2012 – 08/2014
Peer Buddy

- Work with older, autistic children/teenagers at Children at Risks' various camps.

Canadian Mental Health Association   05/2011 – 08/2011
Summer Staff

- Worked alongside members of the CMHA's ACTT (Assertive Community Treatment Team)'s division on providing mental health services to clients. Researched strategic planning initiatives for the organization as well.

EDUCATION

Bachelor of Cognitive Science in Cognitive Science
Carleton University • GPA: 2.7   Ottawa • 01/2010 – 01/2014

- Co-authored a peer-reviewed journal publication.
- Implemented an attentional model (Emergic Network Architecture) for an AI system using Python, which simulated **eye-tracking** movements.
- Established a revision control system (**git**) for the AI model's codebase.
- Documented various wiki articles regarding the AI model.

Diploma in Animation, Interactive Technology, Video Graphics and Special Effects
Algonquin College of Applied Arts and Technology   01/2004 – 01/2007

- Worked with Alias Wavefront Maya, Adobe Photoshop, and Apple Final Cut Pro.
- Developed an understanding of polygonal modelling with Blender.

CERTIFICATIONS

The Bits and Bytes of Computer Networking   10/2021 – Present
Coursera

An Introduction to Interactive Programming in Python (Part 1)   07/2015 – Present
Coursera Course Certificates

edX Verified Certificate for Systematic Program Design – Part 1   07/2015 – Present
edX

Level A CPR   06/2011 – 06/2014

Nonviolent Crisis Intervention   07/2012 - 07/2013

edX Verified Certificate for HTML5 Introduction
edX

VOLUNTEERING & LEADERSHIP

Artengine   07/2012 - Present
Workshop instructor

Conducted workshops focused on Blender 3d.

PUBLICATIONS

WikiSilo: A Self-organizing, Crowd Sourcing System for Interdisciplinary Science   01/2014
Proceedings of the 36th Annual Conference of the Cognitive Science Society (CogSci 2014)