Zane McCaig

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TECHNOLOGY

Typescript, Javascript, C/C++, Python, C#, SQL, assembly

Node.js, GraphQL, .NET

React, Expo/React Native, Angular, Cordova/Phonegap

Tensorflow, keras, matplotlib, scipy, pandas, numpy, jupyter

Postgres, Cassandra, MongoDB, ElasticSearch, MySQL

Gulp, Grunt

Docker, Kubernetes, Helm

GCP, AWS

Linux, Android, iOS, Mac OS and Windows.

MEMS, PIC, ARM, AVR

QisKit

SKILLS

Architecture, fullstack web development, hybrid mobile development, devops, CI/CD automation, UX/UI

Artificial intelligence & machine learning, quantum programming, problem solving, advanced technical research

Leadership, mentorship, technical interviewing, communication

EDUCATION

McGill University, Montreal
B.Eng. Computer Eng.
Class of 2014

Sussex Regional High, Sussex
High School Diploma
Class of 2009

EXPERIENCE

ATB Financial - Leap (*Innovation Lab*), Remote — *Sr. Fullstack Software Engineer*

July 2018 - Present

I am the lead on the Leap data lake project; this includes the architecture and implementation of the lake itself as well as tools for data discovery, processing, analysis/reporting and machine learning. I use a fullstack of Typescript, React, GraphQL and NodeJS for most web applications and python tools such as Tensorflow, Keras, matplotlib, scipy, pandas and numpy for machine learning and data analysis tasks. Some of the databases I am currently using are Postgres, Cassandra and ElasticSearch.

On the innovation team everyone wears many hats so I also spend a lot of time doing ideation with Google Venture Sprints, market analysis, user testing, mentoring, recruiting and I am the lead for all quantum computing needs.

Edvisor, Vancouver — *Sr. Fullstack Software Engineer*

June 2017 - July 2018

Using Typescript, React and GraphQL I built new features into the Edvisor app as well as extensive work on the internal backend framework. I also helped to develop best practices and I passed on knowledge to the team such as the series of talks I gave about machine learning basics.

PSI Technologies Inc., Remote — *Software Engineer*

September 2016 - April 2017

I integrated Quickbooks into the internal ERP system and automated timesheet entry and payroll processes using C#/.NET. I also created many internal tools and scripts with C# and Python that helped to automate mundane tasks.

Instanews Inc., Montreal — *CoFounder & Lead Software Engineer*

February 2015 - December 2016

Using Ionic/Cordova, MongoDB, Node.js, Docker and AWS I designed the MVP for Instanews available on iOS, Android and the web. I handled all aspects of the technical work in the company including devops, database management, bug fixes and feature additions.

Opal RT, Montreal — *C/C++ Software Engineer Intern*

May 2014 - August 2014

I provided significant reductions in compile time and improvements in execution time of the real-time simulation software suite RT-Lab. This was done by replacing templated C/C++ with LLVM based JIT compiling and automatic code generation.

IBM Canada, Markham — *C/C++ Software Engineer Intern*

May 2012 - April 2013

I debugged issues and made repairs to the DB2 source code. I also developed a method for live updating of internal registry variables to ease in tracking down difficult bugs on customers deployments.

Measurand Inc., Fredericton — *Research Engineer Intern*

May 2011 - August 2011, May 2013 - August 2013

Using an ARM processor I merged the data of various MEMS sensors with a Kalman Filter into a stable Inertial Measurement Unit. I used the IMU to create a prototype digital goniometer. I also performed research and 3D modeling of cyclical installations of SAA's (long arrays of accelerometers) for deformation and compression measurements.

References Available Upon Request