

SKILLSET

Languages

Python • Java • C# • C++
Javascript • ES6 • PHP • SQL
Go • Objective-C • Bash

Frontend

ReactJS • Angular 1 • jQuery
Bootstrap • SASS

Backend

Node • Apache Server

Database

mySQL • SQL Server • Hive
Redis

Tools

Docker • PySpark • Hadoop
AWS • Azure ML • Caffe

AWARDS

Hack the North

Grand Finalist • Microsoft
Azure API Winner

PennApps XIII

Capital One Nessie API
Winner

Nordic IoT Hackathon

Top 10 Teams

University of Waterloo

Research Award

EDUCATION

University of Waterloo

Systems Design Engineering
• Cumulative Average **80.13%**

INTERESTS

Reading • Foosball • DIY
Running • Startups • InfoSec

WORK EXPERIENCE

SMART Technologies | Software Developer

September 2016 - January 2017 | Seattle, WA

C++ • C# • Python • MixPanel • Hadoop • Hive • Spark

- Led a team of full-time developers on developing a **sub-50 MB** viewer application for Notebook files on **Windows Desktop**
- Created a feature in SMART Notebook to translate more than **1.3 million** actively used **Adobe Flash Objects** into new Javascript widgets
- Established a **Data Science** department to analyze **3 years** worth of backlogged board connection and user engagement data
- Trained a **K-NN** model in **Spark** to uncover a broken communication pipeline on devices running SMART kapp on **iOS 9.1** in prod

XE.com Inc. | Application Developer

January 2016 - May 2016 | Newmarket, ON

Java • Node • ReactJS • ASP.net • mySQL • Lambda • Docker

- Created the XE Application for **Amazon Echo** from scratch
- Overhauled the **Android Wear application** to reduce loading time by **2.4x** and idle battery drain by **90%**
- Shipped a **brand new** Android app for client RIA Digital which integrated with their existing **ASP.net** backend
- Prototyped a leaner version of the **PHP XE API** sale site in **ReactJS**

RESEARCH

Hierarchal Clustering of Big Image Data

January 2017 - Present | Waterloo, ON

University of Waterloo KIMIA Lab

- Developed algorithm to extract non-trivial patches from Aperio slides with midline
- Leveraged Hierarchal Clustering using **Jensen-Shannon Divergence** to classify patches tagged with **Local Binary Patterns** into 9 clusters per image

PROJECTS

HeyKanye | Hack the North

September 2016 | Waterloo, ON

Python • Librosa • SQL Server • Azure Machine Learning Suite

- Invented a **deep learning** rap track generator using a **hidden Markov model** to generate lyrics, **TTS** to speak them, and **onset detection** to sync to any beat

XpressCart | PennApps XIII

January 2016 | Philadelphia, PA

Java • Arduino

- Developed a self-checkout solution with a weight-sensitive shopping cart and an Android app capable of digital payment