# NEAL ZHAO

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## SKILLS

#### Languages & Frameworks

C/ C++ Java SQL PHP Python Matlab Shell Scripting HTML/ CSS JavaScript/ TypeScript

Node.js/ Express.js AngularJS/ Angular2 Bootstrap

RxJS D3.js jQuery

#### Databases:

Azure Cosmos DB MongoDB CouchDB

#### **Relevant Courses**

Object-Oriented Programming Functional Programming Database Management Algorithm Design User Interfaces Software Architectures Design Software Testing Distributed Systems Computer Networks Data Structure Operating Systems Compiler Design

#### Tools

Visual Studio Code IntelliJ/ Eclipse Sketch/ Photoshop

# EDUCATION

Computer Science/Software Engineering Option, Co-op 09/2014 - 04/2019University of Waterloo

### WORK EXPERIENCE

#### Back-end Developer, Finastra (D+H)

05/2018 - 12/2018

• Creating and maintaining back-end services such as payment initiation service using Node.js and Express.js framework

• Developing platform modules such as reliable communication module that can be used across all services

- Working closely with architectures and familiar with data structures and design patterns
- Creating unit & automated tests and executing them on Continuous Integration pipeline
- Experience in VSTS and various Azure services such as Service Bus and Cosmos DB
- Experience developing and deploying Docker Containers on Kubernetes

#### Front-end Developer, Finastra (D+H)

• Created a UI Toolkit that enables other developers in the company to build consistent UI by using Angular and Google Material Design

• Upgraded an AngularJS application to a hybrid Angular application so that both AngularJS and Angular2+ components can be used

#### UX Designer/ Developer, BlueDot

01/2017 - 04/2017

01/2017 - 03/2017

07/2018

03/2018

09/2017 - 12/2017

• Worked closely with designers and bridged the gap between graphical design and technical implementation

Designed and implemented a data explore web application and presented to the CEO

# PROJECTS

#### Abstract Data Explore, JavaScript

• Designed and implemented a data explore that can join datasets, filter data column in 4 different ways, generate filter expressions and visualize datasets in multiple ways.

Optimized performance on processing extremely large datasets

Try it (sample data provided): <u>https://ruihengzhao.github.io/Abstract-Data-Explore/</u>

#### Camunda AMQP1.0 Custom Connector, Java

• Built a custom connector that can send/receive messages to/from Azure Service Bus via AMQP1.0 protocol for Camunda which is a platform for BPMN workflow automation Code on GitHub: <u>https://github.com/RuihengZhao/Camunda-AMQP1.0-Custom-Connector</u>

#### Remote Procedure Call Implementation, C++ on Linux

• Implemented an RPC protocol using the client-server model and TCP that allows a client to request a service from a server located in another computer without having to understand the network's details

Code on GitHub: https://github.com/RuihengZhao/Remote-Procedure-Call

#### AI Experiments, Python & Matlab

01/2018 - 04/2018

• Implemented a few AI Algorisms, include Text Categorization with Decision Trees, Inference in Bayesian Networks, Naïve Bayes Learning, Expectation Maximization and Decision Networks

Code on GitHub: https://github.com/RuihengZhao/AI-Experiments