

# JONATHAN XUE

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## SKILLS

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**LANGUAGES:** Java, Python, C#, C++

**TECHNOLOGIES:** Jenkins, Docker/Kubernetes, .NET, Maven, Kafka, ReactiveX, Hadoop, Git, SQL (MySQL, SQL Server, Postgresql)

**SCHOOL:** Distributed Systems, Security, Reinforcement Learning, Programming for performance

## EDUCATION

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### University of Waterloo

2015 - 2020

Bachelor of Applied Science - Honours Computer Engineering

## EMPLOYMENT

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### IBM, Full Stack Developer

Sept. 2019 - Dec. 2019

Created guides for OpenLiberty, an open-source framework for building cloud-native Java microservices

Wrote guide for creating a reactive application with OpenLiberty, RxJava and Jersey. Also wrote guide for setting up a Kafka cluster in an OpenLiberty application.

Maintained and designed tools for monitoring traffic and other metadata for the entire organization's guides

### IBM, Security Software Developer

Sept. 2018 - Dec. 2018

Designed employee lookup tool that uses data from an input file to extract data from internal employee database; Tool created with Python

Created a tool to automate the approval process of the usage of third-party libraries using Python and Jenkins

Integrated automatic reminders for Zenhub tasks using Slack and Jenkins

### Finastra, Developer

Jan. 2018 - Apr. 2018

Wrote file import and export service using C#

Automated validation of user inputs into database

Refactored tests using Entity Framework

### SM Research, Software Developer

May 2017 - Aug. 2017

Created software of new model of PCR (Polymerase Chain Reaction) machine using WPF/.NET

Designed custom user controls that model real-world lab equipment such as a data grid that models a 12x12 tray of test tubes

Began integration of MVVM architecture to the entire project

### RBC, Technical QA Analyst

Sept. 2016 - Dec. 2016

Planned solutions to reduce space constraints in test environment, freeing 2 TB of storage in Teradata database

Automated test setup and execution for QA team

## PROJECTS

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### Garden Sentry

2019 - 2020

Automated turret that fires water at rabbits in a garden

Rabbits are detected with a computer vision module (OpenCV)

Clips of firing event are uploaded to cloud bucket and saved

### jX Engine

2020

I'm making my own 2D game engine for my game

The engine is written in C++ with SDL2 and supports all sorts of things like custom UI and real-time physics

You can check out the code on my Github!