Justin Xu

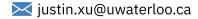xujustinj   xujustinj   justinxu.me   justin.xu@uwaterloo.ca

OVERVIEW

- consistently takes ownership by approaching all work with careful attention to detail, and by seeking out ways to invent better products and team processes
- uses strong problem-solving skills to quickly learn and apply unfamiliar technologies
- **languages:** Python, TypeScript, Java, C++, Swift, Kotlin, Bash, SQL (PostgreSQL)
- **tools:** MongoDB, Node.js, Express.js, REST, GraphQL, React, Docker, Airflow, Figma

EXPERIENCE

Alloy – Software Developer
Dec 2021 – Sep 2021   Vancouver, BC

PostgreSQL, Java, React, Python, TypeScript, JUnit

- designed, implemented, and tested an extension to the core algorithm that combines product data from multiple sources, filling in a critical missing use case in the simplest way possible
- defined a streamlined workflow for complex manual data consistency checks, by conducting internal user research and building tools to automate as much as possible
- leveraged virtualization, lazy execution, and memoization to create a performant and reusable drop-down select React component

FairVentures Lab – Solutions Developer
Apr 2021 – Jan 2021   (remote) Kitchener, ON

Python, Bash, TypeScript, Node.js, React, GraphQL, Docker, Airflow

- built highly-configurable, open-source AI assistants for the insurtech industry
- redesigned a post-processing algorithm to eliminate almost all false positives when parsing text extractions from scanned loss run documents
- combined object detection with word2vec to semantically match images to keywords

Wish – Full Stack Software Engineer Intern
Aug 2020 – May 2020   (remote) Toronto, ON

MongoDB, SQL, Python, GraphQL, React, TypeScript, Grafana

- built a GraphQL API for merchants to manage marketing, and integrated it in a React frontend
- led an A/B test for UI improvements, saw 7.5% more product uploads by affected merchants
- prototyped a Pylint checker that suggests efficiency improvements on PyMongo queries

Osellus – Mobile Software Developer
Aug 2019 – May 2019   Toronto, ON

Swift (native iOS), Kotlin (native Android), SQL

- nominated for Co-op Student of the Year for investigating ways to improve app performance
- sped up client-side data processing by 80% by caching data and improving code efficiency

COMMUNITY

Loo Labs – Backend Team Lead
Sep 2021 – Sep 2020   (remote) Waterloo, ON

PostgreSQL, Express.js, React, Node.js, Docker, TypeScript, CSS, Jest, Figma

- collaborated through a full cycle of the HCI design process within the founding team
- led backend development of the flagship product *Waterpark*, with an emphasis on documentation, code quality, maintainability, and testing

EDUCATION

University of Waterloo – Honours Computer Science
Apr 2023 – Sep 2018   Waterloo, ON

Bachelor of Computer Science, Statistics Minor

- 95.4% cumulative average
- CS 241: won the course challenge to implement the most optimal compiler (Apr 2020)