

Sophie Qin

university of waterloo computer science '22

sophieqin.me

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skills

Languages / Python, Swift, C++, Java, TypeScript, C, SQL, GraphQL, HTML/CSS

Tools / Flask, Tornado, MongoDB, PostgreSQL, SQLAlchemy, React, Heroku, Firebase, Git

experience

Shopify / Backend Developer Intern

Incoming September 2020

Wish / Software Engineer Intern

Jan - Apr 2020

- Built the backend architecture, product selection/push notification infrastructure, and custom pricing logic for Flash Sale, a feature that showcases **100+ products on sale every 4 hours daily** using Tornado, MongoDB, and SQL
- Blocked over **160k fraud accounts** per month by integrating an internal MFA framework into the iOS app's core requests
- Reduced day 0 drop-off for new users by **12%** through building new onboarding experiences
- Implemented user experience changes in the iOS user interface, resulting in a **\$32M** increase in gross merchandise value per year

Hack the North / Backend Developer

Feb 2020 - Present

- Reduced the server load by **hundreds** of database calls through implementing JWT authentication tokens
- Increased platform security by implementing new user authentication flows to upgrade user passwords from pbkdf2-sha512 to bcrypt encryption
- Migrated the server code from SQL and Python to GraphQL and TypeScript to simplify data requests

Wattpad / Software Engineer Intern

May - Aug 2019

- Increased weekly paying users by **15%** through integrating MoPub rewarded video ads into the iOS platform
- Piloted a coin gifting experiment to **50%** of US iOS users, resulting in an estimated **\$10k** increase in monthly revenue
- Automated tests for purchasing coins using XCUITest to increase code coverage in the iOS app

TD Lab / Developer Intern

Sep - Dec 2018

- Improved the location accuracy of a machine learning app that converts paper wireframes into interactive user interfaces by adding symmetry detection logic
- Developed 2 independent apps to increase the conversion rate for various target users using Swift, Firebase, Python

projects

DanceFest

code

- Developed an Android app using Kotlin to automate the Ontario Secondary School Dance Festival judging process
- Utilized Firebase to pre-populate contestants' digital score sheets to streamline adjudication for **500+ participants**

Mnemosyne

code

- Built a web app for users to store and display images using Flask, Postgres, SQLAlchemy and deployed with Heroku
- Created authorized APIs to generate CloudFront pre-signed URLs to securely upload and access images stored to s3

Chamber Crawler 3000

- Applied OOP design patterns to create a command-line dungeon crawl role-playing game in C++
- Maximized code scalability by designing software architecture utilizing MVC principles

education

University of Waterloo / Candidate for Bachelor of Computer Science

Expected Graduation: May 2022