

# William Qin

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## EXPERIENCE

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### Wayfair

Boston, MA

#### Software Engineer II

Jun 2020 – Current

- Authored technical specifications and main contributor of event-driven picking funnel, tour planner, and capacity logic - used for tour creation and assignment for all picking workflows in Wayfair warehouses.
- Developed safety notifications for users picking based on tour metadata and fork information. Integrated physical staging enforcement to reduce fake staging and increase adherence to 96%.
- Implemented asynchronous requests and caching of Operational Research Team's smart tour selection.
- Architect PostgreSQL single purpose database to keep track of picks, consumed with apache kafka. Prototyped integration of Google OR Tools for tour creation and integrated FastAPI to expose rest api endpoints.
- Designed and built replenishment autoenrollment tool for breaking down and moving large parcels into and out of bins area for increased efficiency. Enroll over 350k items. Setup datadog monitoring and grafana dashboards.
- Utilized event driven architecture w/ Faust to decouple picking services. Migrated legacy systems over to GCP.
- Created Jenkins Jobs, resolved Picking related issues and PagerDuties, wrote runbooks and infohubs e.g. no picking/staging location, setting up new warehouses, etc and resolved docker and buildkite issues.

### Fannie Mae

Reston, VA

#### Software Engineering Intern

Jun 2019 – Aug 2019

- Developed tool to visualize dependencies on DDN using D3.js and built Rest API for it to communicate with a web app dashboard to generate monthly trends and projection reports.

### Federal Deposit Insurance Corporation (FDIC)

Washington, DC

#### Modeling & Research Intern

May 2017 – Aug 2017

- Extracted and analyzed historical interest rate data from all U.S. bank branches since 2007 for ~50 consumer products. Modeled rate changes and analyzed bank's performance metrics and deposit insurance data.

### Millennium Challenge Corporation

Washington, DC

#### Intern

Jun 2016 – Aug 2016

- Created internal website displaying metrics and all documents (financial reports, congressional notices) associated with agency's foreign aid projects for company-wide quick access and analytics.

## PROJECT

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### BonusAlly.com

Calculates the best credit cards for users based on an in depth breakdown of their spending habits. Taking account of bonuses, annual fees, and other criterias to narrow down options from all the major credit card issuers. Enable users by saving their progress to firebase.

### Waitlist Skipper

Notifies you with text messages when a class at UMD has an opened seat (someone drops or more seats are added), allowing you to jump the waitlist in the process.

## EDUCATION

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### UNIVERSITY OF MARYLAND

College Park, MD

B.S., Computer Science

Dec 2018-May 2020

B.S., Mathematics

Aug 2015-May 2019

B.S., Economics

Aug 2015-May 2019

## SKILLS

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### Languages

Java · Python · SQL · PHP · Kotlin · R · C · MATLAB · HTML/CSS · JavaScript

### Relevant Coursework

Database Design · Advanced Data Structures · Artificial Intelligence · Computational Methods · Advanced Algorithms · Advanced Calculus · Econometrics · Functional Programming · Game Theory · Statistical Computing · Discrete Structures · Probability Theory