

William Qin

wxqin.com
wxqin@gmail.com | (240) 463-8291

EXPERIENCE

Wayfair

Boston, MA

Software Engineer III

Nov 2020 – Current

- Led team in redesigning the entire replenishment process – generating work to replenish bin shelves by breaking down and forward positioning eligible large parcels for more efficient picking. Event driven microservice.
- Designed and developed application to determine all pick's Completion SLA with consideration for factors like destination, order type, truck departure times, and promised date. Scheduled async batch processing utilizing aerospike caching.
- Wrote technical specification for and major contributor of microservice for tour planning, creation and assignment - provide warehouse associates with optimized and efficient tours, shortening tours when the local time is close to completion SLA
- Develop event driven system to keep track of available picks using Apache Kafka/Faust, consuming ready events and fanning out and hydrating metadata for storage in PostgreSQL database. Prototyped integration of Google OR Tools Vehicle Routing for tour creation and integrated FastAPI to expose rest api endpoints for legacy systems.
- Designed and built replenishment auto-enrollment tool, moving items into and out of bins area for increased efficiency. Enrolled over 400k items. Setup datadog monitoring and grafana dashboards.
- Implemented asynchronous requesting, processing, and caching of Operational Research Team's smart tour selection.
- Utilized event driven architecture w/ Faust to decouple picking services. Migrated legacy systems over to GCP.
- 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%.
- 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

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.

EDUCATION

UNIVERSITY OF MARYLAND

B.S., Computer Science
B.S., Mathematics
B.S., Economics

College Park, MD

Dec 2017-May 2020
Aug 2015-May 2019
Aug 2015-May 2019

SKILLS

Google Cloud Certified Professional Cloud Architect Series ID: 78604

Expires: June 2025

Languages

Python · Java · 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 · Probability Theory