

# MOLLY CHEN

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<https://github.com/mollymolichen>

## EDUCATION

### DUKE UNIVERSITY

BS IN COMPUTER SCIENCE  
Durham, NC | 2015 - 2019

## SKILLS

Azure Portal, ASP.NET, C#  
Kusto, LINQ, App Insights  
Vue, Angular, Redux, AWS  
Fullstack engineering

## MENTORSHIP

Duke Technology Scholars alumni  
Rewriting the Code network  
Microsoft Early in Career lead  
Microsoft Growth Groups member

## COURSEWORK

### DUKE UNIVERSITY

Intro to Algorithms  
Discrete Math (TA)  
Computer Architecture  
Intro to Databases  
Operating Systems  
Computer Security  
Information and the Internet  
Human Computer Interaction

### UNIVERSITY OF EDINBURGH

Data Structures & Algorithms  
Software Testing  
Natural Language Processing  
Marketing Technical Products

## LINKS

### GITHUB

[@mollymolichen](https://github.com/mollymolichen)

### LINKEDIN

[@mollymolichen](https://www.linkedin.com/in/mollymolichen)

### PORTFOLIO

<http://mollymolichen.github.io>

## EXPERIENCE

### MICROSOFT SOFTWARE ENGINEER

AUG 2019 – PRESENT | REDMOND, WA

- Develop performant features on a custom, model-driven server-side framework that supports all of Microsoft's complex cataloging data for its commerce ingestion platform.
- Unify the first- and third-party ingestion experiences by migrating to partner hosted services. Improved site reliability and performance for 200+ users, decreasing request time by 50%.
- Write queries to monitor system health, respond to on-call duties, and ensure system is scalable during high traffic publishes.
- Collaborate with users across business tenants and designers to make UI controls more intuitive during data merging, differencing, and data publish.

### QUANTWORKS SOFTWARE DEVELOPMENT INTERN

JUNE 2018 – AUG 2018 | RESEARCH TRIANGLE PARK, NC

- Implemented early backend functionality for YouPlea, a case management system based on AWS (Lambda, DynamoDB, Cognito) to bring equity and efficiency to plea deals.
- Wrote 75% of prosecutor portal's REST API with AWS Lambda for our first client.
- Migrated middleware codebase into Lambdaless, wrote 100+ tests in Mocha/Chai.
- Refactored DynamoDB schema/JSON to reduce concurrent Lambda executions by 25%.

### SAS INSTITUTE SOFTWARE DEVELOPMENT INTERN

MAY 2017 – AUG 2017 | RESEARCH TRIANGLE PARK, NC

- Added new features to Project Data Sphere, a cancer research platform that facilitates collaboration among researchers, using Spring MVC and Apache Tomcat.
- Improved interface and data on 50k+ patients by condensing statistics and admin dashboard into an easy-to-use format compatible across 200 data providers.
- Created new admin page with jQuery to edit system properties directly, eliminating need to restart Tomcat server or to risk manually editing the data.

### DATA+ RESEARCH INTERN

MAY 2016 – AUG 2016 | DURHAM, NC

- Synthesized data from 10,000+ electronic health records from Duke University Medical Center to predict a patient's disease risk based on medical history.
- Created web app of interactive node network with patient demographics and disease risk using Gephi, SigmaJS, Apache Tomcat.
- Translated complex user queries into ICD-9 medical codes using natural language processing algorithms, drastically improving usability.

## PROJECTS

### ZINGO LEAD DEVELOPER | JAN 2019 – JUN 2019

- Lead developer on a web app used by solo travelers to meet new people while abroad.
- Prototyped interfaces, iterated according to business needs, implemented functionality using Firebase, Vue, Vuetify.

### LEND A HAND CO-FOUNDER, SOFTWARE DEVELOPER | AUG 2014 – DEC 2017

- Chrome extension using NLTK sentiment analysis on social media corpus to detect whether a user is self-harming. Created at HackDuke 2017 (organizer for HD 16').
- Conducted beta testing with student ambassador from American Foundation for Suicide Prevention (AFSP) to improve usability.
- Raised \$1500 for AFSP via business sponsorship, \$1000 from fun run.

### TRANSLATE TRANSIT

SOFTWARE DEVELOPER | AUG 2018 – SEPT 2018

- Internationalization app that helps non-English speakers navigate campus independently.
- Designing prototype in InVision, using Microsoft Text Translate API for functionality.