

## EDUCATION

### DUKE UNIVERSITY

BS IN COMPUTER SCIENCE

Durham, NC | 2015 - 2019

### UNIVERSITY OF EDINBURGH

INFORMATICS

Edinburgh, Scotland

Spring 2018

## SKILLS

### LANGUAGES

Java, HTML, CSS, JavaScript,

TypeScript, Python, C/C++

### TOOLS

Spring MVC, Angular, Flask

MySQL, Postgres, DynamoDB

UNIX, Shell, Ubuntu

Git, JUnit, NLTK, Postman, SAS

AWS, Serverless, JSON, XML

**Interests:** Legal tech, health tech

## COURSEWORK

### DUKE UNIVERSITY

Intro to Algorithms

Discrete Math (TA)

Computer Architecture

Intro to Databases

Operating Systems

Computer Security

### UNIVERSITY OF EDINBURGH

Data Structures & Algorithms

Software Testing

Natural Language Processing

## LINKS

### GITHUB

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

### LINKEDIN

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

### WEBSITE

[www.mollymolichen.com](http://www.mollymolichen.com)

## EXPERIENCE

### QUANTWORKS SOFTWARE DEVELOPMENT INTERN

JUNE 2018 – AUG 2018 | RESEARCH TRIANGLE PARK, NC

- Continued early development for YouPlea, an online portal for managing court orders and plea deals.
- Worked on backend, incorporating TypeScript with AWS system, Serverless, REST API, DynamoDB and S3 object retrieval.

### SAS 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.
- Improved interface and data on 50k+ patients are used by over 200 data providers and healthcare professionals worldwide.
- Created interface to update system properties directly without requiring manual data entry or system restart.

### DATA+ ANALYTIC DEVELOPMENT INTERN

MAY 2017 – AUG 2017 | DURHAM, NC

- Developed global node network from 10,000+ electronic health records from Duke University Medical Center to predict disease risk based on patient medical history.
- Created network using visualization software (Gephi, SigmaJS) and integrated HTML/CSS/JavaScript.
- Translated complex user queries into ICD-9 medical codes using natural language processing algorithms.

## PROJECTS/ADVOCACY

### LEND A HAND CO-FOUNDER, SOFTWARE ENGINEER

- Chrome extension using NLTK sentiment analysis on social media corpus to detect whether a user is self-harming.
- Beta testing with student ambassador from American Foundation for Suicide Prevention (AFSP) to improve use.
- Raised \$1500 for AFSP via business sponsorship, \$1000 from fun run.

### PEER AVATAR COACHES RESEARCHER

- Bass Connections research project on the use of peer-led virtual avatars to improve access to mental health treatment.
- Beginning development of Sidekicks application to connect struggling college students to peer health coaches via mobile app.

### MEMEMATCH SOFTWARE ENGINEER

- Dating app that matches users based on similar meme preferences.
- Used rank-based overlap (RBO) algorithms, Postgres and Flask, deployed with Heroku.