

MOLLY CHEN

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mollymolichen.github.io

EDUCATION

DUKE UNIVERSITY

BS IN COMPUTER SCIENCE

Durham, NC | 2015 - 2019

INTERESTS

Software development + engineering

Health tech, legal tech

Product management

SKILLS

LANGUAGES

Java, JavaScript, TypeScript

Python, HTML, CSS, C/C++

TOOLS

AWS, REST, JSON, Node.js, npm

SQL, Postgres, Dynamo, Tomcat,

Spring, Flask, Angular, Cognito

JUnit, Mocha, Chai, Jest, Postman

Serverless, Git, Bash, eCharts

Backend and frontend experience.

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

LINKS

GITHUB

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

LINKEDIN

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

WEBSITE

<http://mollymolichen.github.io>

ANGELLIST

<https://angel.co/molly-chen-3>

EXPERIENCE

QUANTWORKS SOFTWARE DEVELOPMENT INTERN

JUNE 2018 – AUG 2018 | RESEARCH TRIANGLE PARK, NC

- Implemented early backend functionality for YouPlea, a lean case management system based on AWS (Lambda, Dynamo, 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.
- Brainstormed for an auditing system to ensure legal compliance with external systems.
- Refactored Dynamo schemata/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+ ANALYTIC DEVELOPMENT 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.
- Collaborated with team to write scripts to mine EHRs using Python Pandas.
- Translated complex user queries into ICD-9 medical codes using natural language processing algorithms, drastically improving usability.

PROJECTS/ADVOCACY

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.

COMMUNITY INTERVENTION STUDENT RESEARCHER | AUG 2018 - PRESENT

- Duke Community Health Intervention research on the effectiveness of obtaining a GED or job training skills on reducing recidivism for incarcerated persons.
- Utilizing interdisciplinary research methods in psychology, cognitive science, and human-centered design to create online interface to track inmates' progress.

TRANSLATE TRANSIT SOFTWARE DEVELOPER | AUG 2018 – PRESENT

- Mobile app that helps non-English speakers navigate a city by providing translations.
- Designing prototype in InVision, using Microsoft Text Translate API for functionality.

MEMEMATCH SOFTWARE DEVELOPER | JAN 2017 – MAY 2017

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