

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

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

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.
- Restructured DynamoDB schemata and JSON according to evolving business specs.

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.
- 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.

VIRTUAL AVATAR COACHES STUDENT RESEARCHER | AUG 2018 - PRESENT

- Duke University Bass Connections research project on the use of peer-led virtual avatars to improve access to mental health treatment.
- Developing new app based off Sidekicks application to give struggling college students 24/7 access to peer health coaches, working with faculty members from Medical School.

TEMPLATE ENGINE SOFTWARE ENGINEER IN TEST | FEB 2017 – APR 2017

- Implemented part of a Java-based template engine to parse server-side strings.
- Wrote JUnit test suite of 200+ tests based on specifications to ensure correct output.

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.