

# Alex Chen

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## Education

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**Yale University**, New Haven, CT, Expected May 2023

B.A. Computer Science and Ethics, Politics, & Economics; GPA 3.82/4.0

## Work Experience

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**Software Engineering Intern**, *Dreambound*, San Francisco, CA

June 2021 - August 2021

- Used React, TypeScript, NodeJS, and GraphQL to build internal and customer-facing portals within agile team with the mission of promoting upward economic mobility through access to vocational training
- Led refactor of bulk import tool from front-end to back-end as part of ORM refactor from Prisma to Objection.js
- Implemented production-ready migrations, geocoding lookups through Google Maps API, sorters and filterers, database seeding, PostGIS distances, and various bug fixes and UI improvements

**Digital Services Intern**, *NYC Mayor's Office of the CTO*, Remote

May 2020 - August 2020

- Built digital solutions for NYC government agencies connecting New Yorkers to government services
- Scoped and implemented MVP for modular open-source translation pipeline for city agencies, designing data architecture, conducting user research with government stakeholders, and integrating existing open-source tools
- Automated Adobe InDesign and Illustrator using ExtendScript to complete project mapping broadband access

**Teaching Assistant**, *Yale Biomedical Engineering Department*, Remote

May 2021 - Present

- Assisted in project-based curriculum development for BENG 406: Medical Software Design
- Focused on product management strategies for medical applications, with an emphasis on the modern healthcare regulatory environment and software validation

**Undergraduate Learning Assistant**, *Yale Computer Science Department*, Remote

September 2020 - January 2021

- Tutored undergraduates in writing C code for CPSC 223: Data Structures and Programming Techniques
- Topics included data structures (arrays, stacks, queues, lists, trees, heaps, graphs), sorting and searching, storage allocation and management, and data abstraction

**App Developer**, *Yale Student Technology Collaborative*, New Haven, CT

October 2019 - January 2021

- Used Ruby on Rails, React Native, RESTful APIs, and Bootstrap to develop web and mobile apps used by thousands in the Yale community, with experience in the full Software Development Life Cycle

## Projects and Awards

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### Modeling Systemic Inequality Within Police Organizations with an Agent-Based Model

As a [JURIST Digital Scholar](#) and [HASH Fellow](#), conducted research culminating in an agent-based model of police organizations and the communities they serve, emphasizing the difference between “a few bad apples” and actual systemic inequality, exploring the causal role of policy reforms in resolving police brutality.

### Yale Emergency Support (YES) — New Haven Pandemic Task Force

Worked with 5-person team to develop emergency pandemic volunteer management and training [web app](#) for the City of New Haven, matching 500+ users to volunteer opportunities with city government and 20+ New Haven nonprofits.

### Independent Political Science Research

Conducted [independent study](#) applying political typology to members of Congress using congressional databases. Named Regeneron STS 2019 semifinalist and won NYCSEF 2019 First Award.

### Hackathons

Placed top five in YHack 2019 by developing community-building app for mental health with mapping software and augmented reality features. Won Best Computational Hacks in AtomHacks 2018 by analyzing webpages' political biases with natural language processing.