

# CATHERINE CHEN

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## EDUCATION

### Brown University

PhD in Computer Science

- Advisor: Carsten Eickhoff
- Relevant Courses: Deep Learning

Providence, RI  
Aug 2021 - Present

### Wellesley College

B.A. in Computer Science, French

- Relevant Courses: Artificial Intelligence, Combinatorics & Graph Theory, Computer Systems, Data Structures, Databases w/ Web Applications, Fundamental Algorithms, Intro to Machine Learning, Statistics w/Calculus, Linear Algebra, Multivariable Calculus, Theory of Computation, Theory of Programming Languages
- Track & Field (2015-2019): Captain, 2019 NEWMAC 100m Hurdles Champion and Academic All-Conference Team, school records in 60m/100m/400m hurdles
- Swimming & Diving (2015-2017): Two-time Seven Sisters All Conference Team, 2016 NEWMAC All Conference Team, 200 Medley Relay school record holder, Recruiting Committee

Wellesley, MA  
Aug 2015 - May 2019

### Aix-Marseille University

Study Abroad

- Full immersion program with courses in linguistics, history of world languages, translation, and writing

Aix-en-Provence, France  
Aug 2017 - Jan 2018

## RESEARCH EXPERIENCE

### Brown University

Research Assistant

- Advised by Carsten Eickhoff
- Research interests include interpretable ML, applications of ML in healthcare

Providence, RI  
Sept 2021 - Present

### Wellesley College

Independent Study

- Advised by Brian Tjaden and Katherine Hall
- Applied AI/ML methods to help a venture capital firm, Glasswing Ventures, predict start-up success and identify influential factors
- Collaborated with professors from Wellesley College and Olin College of Engineering and researchers from Glasswing
- Provided technical expertise to a team of 4 other students during the fall semester

Wellesley, MA  
Sept 2018 - May 2019

### University of Massachusetts, Amherst

Research Assistant

- Advised by David Jensen and worked alongside PhD students in the Knowledge Discovery Lab
- Funded by the NSF as a participant of the Research Experience for Undergraduates (REU) in Data Science
- Examined data from 283 Atari Breakout games played by Google Deepmind's CNN on the lab's DARPA XAI project

Amherst, MA  
June - Aug 2017

## INDUSTRY EXPERIENCE

### FreeWheel, A Comcast Company

Software Engineer

- Worked in an Agile/Scrum environment to develop features that allows media buyers/sellers to manage their ad inventory
- Collaborated with Comcast ML engineers and FreeWheel SWEs in Beijing to create and integrate new technologies into our system
- Developed/maintained APIs in Golang with gRPC to ingest/manage advertising creatives stored in AWS S3 and a MySQL database
- Implemented UI components for a React based web application with service-oriented backend architecture containerized with Docker and Kubernetes
- Developed a video classification deep learning model using Keras/Tensorflow to streamline and standardize advertiser industry assignment processes for human reviewers

New York, NY  
Aug 2019 - Aug 2021

### PatientsLikeMe

Engineering Intern

- Wrote ~2000 lines of code using Ruby on Rails and React for a monolithic web app that comprises the world's largest personalized health network, helping people with chronic illnesses connect with one another and find new treatments
- Implemented adminable functionality which enables departments outside of Engineering the ability to make changes to the website to increase user retention

Cambridge, MA  
June - Aug 2018

## TEACHING EXPERIENCE

### CS 235: Theory of Computation

Supplemental Instructor

- Held weekly office hours to provide instruction and aid to students
- Helped professors grade assignments and exams

Wellesley College  
Sept - Dec 2018

## AWARDS

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- 2019 Camellia Student Leadership Award Nominee
- 2018 Wellesley College Grace Hopper Conference Scholarship

## CONFERENCE PRESENTATIONS

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- 2019, Ruhlman Conference, Wellesley College, Using Machine Learning to Predict Startup Success
- 2018, Ruhlman Conference, Wellesley College, Artificial Intelligence: From Fiction to Reality

## SERVICE

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- 2020, Mentor, Wellesley Senior Support Network, Wellesley College (Remote)
- 2020, Alumnae Admissions Interviewer, Wellesley College (Remote)

## OTHER SKILLS

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**Programming** Python, React, JavaScript, Golang, Ruby on Rails, MySQL, R, Java, HTML, CSS

**Practices/Tools** Git, Docker, Kubernetes, Pandas, Sklearn, Keras, Tensorflow, Flask, Jira, Confluence, Agile, Scrum

**Languages** English, French, Mandarin