

# Ally Zhang

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## SKILLS

- *Programming languages:* Java, JavaScript, Python, HTML, CSS, C, C#, SQL
- *Technologies:* Web development (React/Redux/Angular), graphic design, database management, machine learning
- *Other:* French (B2), Adobe Photoshop, Agile methodology

## EDUCATION

**Cornell University**, College of Arts & Sciences, Ithaca, NY

*Expected Dec. 2020*

- Bachelor of Arts, Computer Science and Linguistics
- *GPA:* 4.11/4.3
- *Notable Coursework:* Object-Oriented Data Structures; Computer System Organization and Programming; Introduction to Database Systems; Computational Linguistics
- *Awards/Honors:* Dean's List, Phi Beta Kappa, Tanner Dean's Scholar, Ted Morris Prize

## EMPLOYMENT

**Software Engineering Intern**, Mastercard

*Jun. 2020-Jul. 2020*

- Designed full-stack application feature allowing business clients to easily select dates for statistical analysis of sales
- Developed feature front-end and middleware in TypeScript, React, Redux, as well as C# code to service new data
- Wrote complex SQL script to automatically generate attributes for client database back-end
- Worked with quality-assurance engineers, testers and fellow developers in Agile environment

**Software Engineering Intern**, Fidelity Investments

*May 2019-Aug. 2019*

- Developed web application for creating automated mailing lists in Angular, strengthening customer outreach
- Streamlined and automated internal news posts using Salesforce Marketing Cloud
- Helped migrate applications to cloud hosting through Amazon Web Services

**Teaching Assistant**, Computer System Organization and Programming, Cornell University

*Jan. 2019-Present*

- Tutor and evaluate upper-level undergraduates on assembly programming, computer architecture, and C
- Build and maintain Python auto-grading tools and C projects
- Guide students as a leader and mentor through interactive office hours, lab sections, and homework assignments

## RESEARCH

**Natural Language Processing Group**, Cornell Tech

*Jan. 2019-May 2020*

- Worked with Dr. Yoav Artzi to evaluate machine-learning models on ability to process captions and image content
- Deployed and studied machine-learning algorithms including recurrent and convolutional neural networks
- Coauthored ACL 2019 conference paper: "A Corpus for Reasoning About Natural Language Grounded in Photographs"

**Computational Linguistics Lab**, Cornell University

*Aug. 2018-Dec. 2019*

- Worked with Dr. Mats Rooth to perform computational transcription and analysis of Portuguese phonology, benefiting digital archival of Portuguese
- Parsed and manipulate XML corpus data in Python, automating the process of transforming data for analysis
- Developed complex finite-state model to move transcribed text between formats

## PROJECTS

**Database System Development**

*Sep. 2019-Dec. 2019*

- Created database management system in Java, including complex SQL interpreter
- Boosted data retrieval efficiency through query optimization and understanding of data structures

**Classification of Spanish and English Phonetic Forms**

*May 2018*

- Classified sound strings into English or Spanish using SVM machine-learning algorithm in Python scikit-learn
- Created Python syllabification and syllable-structure models for English and Spanish

## COMMUNITY INVOLVEMENT

**Publicity Officer**, Association of Computer Science Undergraduates, Cornell University

*May 2018-Present*

- Arrange events, meetings and outreach through website and social media, reaching thousands of CS students
- Active leader and volunteer in Cornell's CS community through tech talks, interview prep, and other career tools

**Technology Lead**, Colleges Against Cancer, Cornell University

*May 2018-Dec. 2019*

- Organize graphic design, publicity and web design reaching entire Cornell campus
- Raise thousands of dollars in fundraising to benefit cancer survivors, treatment, and the annual Relay for Life