

# William Ma

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*I am a software engineer and CS researcher who is eager to dive into every technical detail.*

*Interests: ML, NLP, iOS, Compilers, CV*

## Education

### Cornell University / Ithaca, NY

Jan 2022 – May 2022

- Masters of Engineering, Computer Science
- GPA 4.3 / 4.3

### Cornell University / Ithaca, NY

Aug 2018 – Dec 2021

- B.S. Computer Science
- GPA 4.2 / 4.3, *Summa Cum Laude*
- Minor in Mathematics

## Experience

### AR & NLP Research Intern @ Bosch

June 2022 – Present

- Defined a user study for novel user interaction in AR
- Trained and deployed language models to AWS cloud

### Systems Research

Sep 2021 – May 2022 [[Link](#)]

- Refactored model checker in C
- Developed technique for efficient verification of programs used in Operating Systems course at Cornell

### NLP Research

Jan 2021 – Dec 2021 [[Link](#)]

- Developed PyTorch ML training and evaluation pipelines for transformer language models
- Read, summarized, and presented papers on state-of-the-art named entity recognition

### Open-Source Contributor @ Homebrew

May 2020 – Aug 2020 [[Link](#)]

- Implemented web scraper to add license information to ~2500 homebrew-core packages
- Addressed long-standing user confusion by merging 8 pairs of similar commands in brew CLI

### iOS Dev & Lead @ Cornell AppDev

Sep 2018 – Dec 2020 [[Link](#)]

- Grew user base by 20% during 2019
- 9,600 MAU, 3,600 DAU
- Contributed over 80 peer-reviewed pull requests

## Projects

### OceanScene / Real-time Rendering

Spring 2022 [[Link](#)]

- Built multi-stage deferred rendering pipeline in OpenGL using C++
- Implemented Tessendorf ocean simulation based on Inverse FFT

### Sharm / Systems Research Project

Fall 2021 [[Link](#)]

- Implemented, profiled, and benchmarked interpreter and source-to-source compiler
- Wrote and presented academic-style paper summarizing results

### TriBlank / NLP Research Project

Spring 2021 [[Link](#)]

- Ideated, developed, and experimented on novel approach for three-way entity relation extraction
- Wrote and presented academic-style paper summarizing results

### Xi / Compiler

Spring 2020

- Implemented dataflow analysis and optimizations
- Developed comprehensive test suite with unit, performance, and integration testing

### Cello Mute / iOS App

2016 – 2018 [[Link](#)]

- Independently developed iOS app
- 39K downloads

## Skills

- Python, PyTorch, Transformers, Swift, iOS App Development, Java, C++