

# William Ma

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## Experience

### Bosch / AR & NLP Research Intern

Jun 2022 – Present

### HarmonyLang / Systems & PL Research

Sep 2021 – May 2022 [[Link](#)]

- Prototyped and researched Harmony Automata
- Implemented Harmony-to-Python transpiler

### Low-Resource NER / NLP Research

Jan 2021 – Dec 2021 [[Link](#)]

- Researched into few-shot and fine-grained NER
- Experimented using transformer language models

### Homebrew / Open-Source Contributor

May 2020 – Aug 2020 [[Link](#)]

- Unified 8 brew and brew cask commands
- Added cask support to 3 brew commands
- Added license information to 50% (ct. ~2500) homebrew-core packages

### Cornell AppDev / Eatery iOS & Pod Lead

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

## Education

### Cornell University / Ithaca, NY

2018 – 2022

- M.Eng. Computer Science
- B.S. Computer Science, Summa Cum Laude
- Minor in Mathematics

## Projects

### OceanScene / Real-time Rendering

Spring 2022 [[Link](#)]

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

### 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, Computer Graphics, Swift, iOS Development