# William Ma

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# **Experience**

#### Bosch / AR & NLP Research Intern

Jun 2022 - Present

#### HarmonyLang / Systems & PL Research

Sep 2021 - May 2022

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

#### Low-Resource NER / NLP Research

Jan 2021 - Dec 2021

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

#### **Homebrew** / Open-Source Contributor

May 2020 - Aug 2020

- 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

- Grew user base by 20% during 2019
- 9,600 MAU, 3,600 DAU
- Most prolific contributor to Eatery iOS

### **Education**

### Cornell University / Ithaca, NY

2018 - 2022

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

# **Projects**

#### OceanScene / Real-time Rendering

Spring 2022

- Built multi-stage deferred rendering pipeline in OpenGL using C++
- · Implemented Tessendorf ocean sim.

# Sharm / Systems Research Project

Fall 2021

- Interpreter and source-to-source compiler
- Wrote and presented academic-style paper summarizing results

#### TriBlank / NLP Research Project

Spring 2021

- 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

- Independently developed iOS app
- 39K downloads

### **Skills**

 Python, PyTorch, Transformers, Computer Graphics, Swift, iOS Development