

William Ma

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EDUCATION

CORNELL UNIVERSITY

BS, COMPUTER SCIENCE
Expected May 2022 | Ithaca, NY
College of Engineering
Dean's List (3 semesters)
GPA: 4.3

ARLINGTON HIGH SCHOOL

2014 - 2018 | Lagrangeville, NY

COURSEWORK

COMPUTER SCIENCE

Analysis of Algorithms, Compilers,
Functional Programming,
Object-Oriented Design and Data
Structures, Theory of Computing,
Discrete Structures

BUSINESS

Financial and Managerial Accounting,
Macroeconomics

MATHEMATICS

Linear Algebra, Multivariable Calculus

TECHNICAL SKILLS

PROFICIENT

Swift, Java, OCaml, Xcode, UIKit,
Animations with UIKit, Core Data, Core
Location, MapKit, LaTeX, Git, Vim, Ubuntu

EXPERIENCED

Objective C, Python, Verilog, HTML, CSS,
Android Studio, Web Development,
Nginx, VMware ESXi

ACTIVITIES

Cornell University Glee Club

HOME BREW

OPEN-SOURCE CONTRIBUTOR

THE MISSING PACKAGE MANAGER FOR MACOS (OR LINUX)

SUMMER 2020 — PRESENT

- **Unified 8 brew and brew cask commands; Added cask support to 3 brew commands**
- **Added license information to 50% (ct. ~2500) of homebrew-core packages**
- Part of the inaugural MLH Fellowship
- *Github*: <https://github.com/homebrew>
- *Technologies*: Ruby, Rspec, DSLs

XI COMPILER

COMPILER FOR IMPERATIVE LANGUAGE INTO X86 ASSEMBLY

SPRING 2020 FOR CS 4120

- **Implemented dataflow analysis optimizations: Register allocation, copy propagation, dead code elimination, loop unrolling**
- Lexing with JFlex, parsing with CUP, type-checking, syntax-directed IR generation, dataflow-based optimization, ASM generation with tiling
- *Technologies*: Java, JFlex, CUP, JUnit testing, Gradle

EATERY

IOS DEVELOPER & PROJECT MANAGER

FIND FOOD AT CORNELL

FALL 2018 — PRESENT

- **Grew user base by 20 % during 2019**
- **7.2k Monthly Active Users, 2.5k Daily Active Users**
- Architected a large feature: Collegetown Eateries
- Implemented design changes; refactored legacy UI code into more modular components
- Worked on a team with iOS, Android, and backend developers, as well as designers and marketers
- *Github*: <https://github.com/cuappdev/eatery>
- *Technologies*: iOS, Swift 4.2, UIKit, Apollo

CELLO MUTE

INDEPENDENT IOS APP

THE TOOLS MUSICIANS NEED, ALL IN ONE

SUMMER 2016

- **39K Downloads**
- Designed both the UI and the icons used throughout the app
- Illustrated marketing material used on the App Store.
- *Github*: <https://github.com/whoiswillma/Cello-Mute>
- *Technologies*: AudioKit, UIKit animations