William Ma

http://whoiswillma.github.io

wm274@cornell.edu | (845) 337-7521

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

EXTREMELY PROFICIENT WITH
Languages: **Swift**, **Java**, OCaml
Tools: Xcode, UIKit, Animations with
UIKit, **Core Data**, Core Location, MapKit,
LaTeX, Git, Vim, Ubuntu

HAVE EXPERIENCE WITH
Languages: Objective C, Python, Verilog,
HTML, CSS
Tools: Android Studio, Web Development,
Nginx, ESXi VMware

ACTIVITES
- Cornell University Glee Club

HOMEBREW

OPEN-SOURCE DEVELOPER TOOL The Missing Package
Manager for macOS (or Linux)
Summer 2020 — Present
- **More closely integrate brew and brew cask**
- **Add license information to 50% (ct. ~2500) packages**
- Part of the inaugural MLH Fellowship
- *Github: https://github.com/homebrew*
- *Technologies: **Ruby**, Rspec, DSLs*

XI COMPILER

COMPILER FOR C-LIKE LANGUAGE Spring 2020, CS 4120
Compiles a type-checked LALR C-like language into x86 ASM with
optimization
- **Dataflow analysis on control flow graph**
- **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
- **Helped grow 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; refactor 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 Summer 2016
The tools musicians need, all in one
- **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*