LinkedIn
williamma.dev
wm274@cornell.edu

William Ma

Education

Cornell University

Jan 2022 – May 2022

- M.Eng. Computer Science
- GPA 4.3 / 4.3

Cornell University

Aug 2018 – Dec 2021

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

Experience

Software Engineer @ Juniper Networks

Nov 2022 – Present

- Developed tool to generate and measure throughput of line-rate traffic on device
- Created tools to manage internal processes for team
- Intern manager for Summer 2023

AR & NLP Research Intern @ Bosch

Jun 2022 – Oct 2022

- Defined user study to evaluate novel interaction in augmented reality
- Trained and deployed n-gram language models

Systems Research @ Cornell ⬈

Sep 2021 – May 2022

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

NLP Research @ Cornell ⬈

Jan 2021 – Dec 2021

- Developed PyTorch training and evaluation pipelines for language models
- Researched named-entity recognition

Open-Source Contributor @ Homebrew ⬈

May 2020 – Aug 2020

- Implemented web scraper to add license information to 2500 homebrew-core packages
- Addressed long-standing user confusion by merging 8 similar commands

iOS Developer @ Cornell AppDev ⬈

Sep 2018 – Dec 2020

- Grew Eatery userbase by 20% over 2019
- Contributed 83 pull requests

Projects

OceanScene / Real-Time Rendering ⬈

Spring 2022

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

Sharm / Systems Research Project ⬈

Fall 2021

- Implemented, profiled, and benchmarked interpreter and source-to-source compiler in Swift

TriBlank / NLP Research Project ⬈

Spring 2021

- Experimented on novel transformer-based model for relation extraction

Xi / Compiler

Spring 2020

- Parsed context-free grammar
- Implemented dataflow analysis and optimizations, including register allocation
- Developed test framework with unit, performance, and integration tests

Cello Mute / iOS App ⬈

2016 – 2018

- Independently developed iOS app for musicians
- 39K downloads

Skills

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

Coursework

- Compilers, Computer Graphics, Computer Vision, Embedded Systems, Formal Verification, Natural Language Processing, Operating Systems, Quantum Computing, Software Defined Networking
- Differential Equations, Linear Algebra, Number Theory