

# Tony Yang

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## Education

### Cornell University

Ithaca, NY

BACHELOR OF ARTS IN COMPUTER SCIENCE

Expected May 2023

- Relevant Coursework: OOP & Data Structures, Functional Programming, Analysis of Algorithms, Discrete Structures, Database Systems, Linear Algebra, Programming Languages & Logics, Operating Systems, Embedded Systems, Computer Networks, System Security\*, Machine Learning\* (\* = planned)

## Experience

### Capital One

McLean, VA

SOFTWARE ENGINEER INTERN

Jun. 2021 - Aug. 2021

- Created unsupervised learning models using Python to help identify profiles/clusters of 43+ million subscribers to accelerate offer acceptance and engagement for business
- Developed recommendations of new features to segment users by to the CreditWise team and improved the team's understanding of features impacting offer acceptance rate
- Engineered a data pipeline to integrate 7 credit-related data sets with over 2 billion entries on Snowflake using SQL to train ML models
- Improved the performance of model by 60% by reducing model execution time from 25 minutes to 10 minutes for each iteration

### Cornell Design & Tech Initiative

Ithaca, NY

SOFTWARE DEVELOPER

Oct. 2019 - May 2021

- Worked on Rider, a ride-share app for students with disabilities on campus, with a team of designers, product managers, and developers
- Implement a responsive and accessible frontend for the iOS and Android app with Flutter, while following the Git branching and CI/CD workflow
- Built reusable widgets, implemented push notifications, and integrated REST APIs with the frontend of the app

### Cornell University

Ithaca, NY

TEACHING ASSISTANT

Jan. 2021 - Current

- Hold office hours and grade assignments for students
- Spring 2021 - Current: Functional Programming (400+ students)
- Summer 2021: Analysis of Algorithms (40+ students)

## Projects

### lang

OCAML

Oct. 2020 - Dec. 2020

- An interpreter and static type checker for my own functional programming language *lang*
- This language includes a small standard library, module system, pattern matching, and custom user-defined data types

### Moody

REACT NATIVE (TYPESCRIPT)

Aug. 2020

- An iOS and Android tracker app meant for users to track and reflect on their emotions, as well as provide encouragement for users
- Integrated Google Dialogflow to create a Chatbot that sends encouraging quotes and memes based on users' mood
- Placed top 3 for the hackathon's Mental Health category

### mediaRec

REACT, FLASK, PYTHON

Jul. 2020. - Aug. 2020

- Develop a webapp that provides movie and song recommendations based on user preferences using Spotify API and TMDb API
- Implement recommendation algorithm/logic using Flask, with a frontend created with React

### OScrabble

OCAML

Mar. 2020. - May. 2020

- A functional implementation of the board game Scrabble with local multiplayer, developed as my final project submission for CS 3110
- Implemented word checking logic using a Trie for word verification and a scoring system that manages each player's score

## Skills

#### Languages

Java, OCaml, Python (scikit-learn, NumPy, Pandas), JavaScript, TypeScript, Dart, C, HTML/CSS

#### Technologies and Tools

Android Studio, Flutter, React, React Native, Git, Node.js, Firebase, Express, PostgreSQL

#### Awards

Tanner Dean's Scholar