

Tony Yang

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Education

Cornell University

Aug. 2019 - Current

M.Eng. Computer Science (expected May. 2023)

B.A. Computer Science (expected Dec. 2022)

Relevant Coursework: Data Structures, Functional Programming, Analysis of Algorithms, Discrete Structures, Database Systems, Linear Algebra, Programming Languages & Logics, Operating Systems, Embedded Systems, Computer Networks, Artificial Intelligence, Machine Learning, Computer Vision, Principles of Large-Scale Machine Learning Systems*, Computer Graphics* (* = in progress)

Experience

Google - Software Engineering Intern, New York, NY

May 2022 - Aug. 2022

- Provided a more informative interface to users of Soundboard, YouTube Music's platform for music curation at scale, by updating the task filters UI and adding new filtering capabilities, which allow operators to more effectively manage the YouTube Music Corpus.
- Implemented frontend in Polymer, iterating on mockups with a UX team, to offer a more efficient system of managing music data for users by decreasing the amount of time users need to filter tasks by over 50%.
- Developed a Spanner database schema and updated relevant APIs using Java to support tags in the backend, providing a new and more customizable way of filtering tasks.

Capital One - Software Engineer Intern, McLean, VA

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.
- Provided recommendations of new features to segment users for 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 University - Teaching Assistant, Ithaca, NY

Jan. 2021 - Jun. 2022

- Hold office hours, lead discussion section, and grade assignments for students.
- Spring 2021 - Spring 2022: Functional Programming and Data Structures (300+ students)
- Summer 2021: Analysis of Algorithms (30+ students)

Cornell Design & Tech Initiative - Software Developer, Ithaca, NY

Oct. 2019 - May 2021

- Developed Rider, a ride-share app for students with disabilities on campus, with a team of designers, product managers, and developers.
- Implemented 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.

Projects

lang | OCaml

Oct. 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.

mediaRec | React, Flask, Python

Jul. 2020

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

Covid Case Hunters | NumPy, Pandas, scikit-learn

Nov. 2021

- Compared effectiveness of ML algorithms such as Gradient Boosted Regression Trees to predict the log of the number of positive cases of a given country.
- Placed 5th out of 96 in the class overall in CS 4780 - Introduction to Machine Learning.

Skills

Programming Languages

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

Technologies and Tools

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