

Matthew Chan

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GitHub: github.com/mattchann

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EDUCATION

Cornell University – College of Engineering

Ithaca, NY | Expected May 2024

B.S. Computer Science | Minor in Information Science (UI/UX) | GPA: 3.838

- Coursework: Algorithms, Machine Learning, Computer Vision, OOP & Data Structures, Functional Programming, Computer Systems Programming, Operating Systems, Database Systems, Discrete Structures, Fundamentals of Robotics, Web Development, Linear Algebra, Multivariable Calculus, Product Development, Blockchain Development, Statistics
- Activities: BreakFree Dance Crew, Chinese Student Association, Intramural Volleyball

EXPERIENCE

JPMorgan Chase & Co. – Software Engineer Intern

New York, NY | June 2023 – August 2023

- Automated failure classification to performance & functionality API testing report generation for monthly release validation
- Developed Remote Ops performance testing utility to benchmark 10,000+ transaction requests with performant feedback loop
- Interfaced with Loan IQ database through automated SQL query scripts to facilitate breadth testing and test case construction

Cornell Institute of African Development – Software Engineer

Remote | December 2022 – February 2023

- Partnered with the OKB Hope Foundation to transform and democratize healthcare provision in underserved areas of Ghana
- Developed accessible medical appointment scheduling application with WhatsApp and Google Calendar integrations
- Allowed health providers to serve life-saving treatment to patients and communities through both telehealth and mobile clinics

FTC Robotics Team 479 – Co-President

New York, NY | June 2018 – June 2020

- Organized weekly team meetings for 20+ people to design/build competition robots from scratch using constrained materials
- Competed by driving/operating team robot in NYC championship competitions consecutively and won nine separate awards
- Created and led new elementary school extracurricular robotics programs using LEGO to teach engineering and coding skills

PROJECTS

Big Red Talks

January 2022 – February 2022

iOS mobile application for live location-based campus messaging between verified Cornell students

- Developed custom RESTful API for management of user preferences and message logs using Node.js, Express, and MongoDB
- Collaborated in team of 5 to integrate pieces of the application by hosting backend application on Heroku for remote access

Reddit Stock Bot

March 2021 – May 2021

Stock trading bot to automate portfolio based on Reddit sentiment with learned weight optimization

- Worked in team of 4 to develop weighting algorithm to compare stocks mentioned with optimization correction over time
- Implemented language sentiment analysis according to VADER model and web scraping of Reddit posts entirely in OCaml

Kairosclerosis

April 2020 – May 2020

Global visualization to analyze locational impact on factors corresponding to happiness

- Designed and implemented website layout according to dataset utilized to most effectively convey information/draw insights
- Implemented interactivity of website using D3.js to map data to respective country elements with full zoom/pan functionality

Graphics Engine

January 2020 – June 2020

A graphics engine built from scratch to handle basic shapes, lighting, and animation with MDL file interpretation

- Implemented geometries of lines, polygons, and complex 3D shapes with shading, lighting, and color effects
- Developed matrix transformations, animations, and coordinate systems with complex easing effects between frames

Solon

August 2019 – February 2020

Mobile application to facilitate parental involvement in schools by providing digital access to voting and updates from faculty

- Developed custom loading animation using Flutter for cross-platform deployment and improved user experience
- Marketed application to potential investors and school administration for integration while adhering to existing bylaws

SKILLS

Languages Java, JavaScript, TypeScript, HTML/CSS, C, Python, OCaml, SQL

Technologies Git, React, Node.js, Express, Firebase, MongoDB, Postman, Flask, Jinja, D3.js, Heroku, Bootstrap, GSAP

Interests Volleyball, Dance, Robotics, Iced Coffee