# Thomas J. Pickup

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#### **Education**

#### University of Michigan, Ann Arbor, MI

April 2022

Bachelor of Science in Engineering in Computer Science, Minor in Mathematics

GPA: 3.52/4.0

Awards - Dean's List, University Honors

Related coursework: Programming and Introductory Data Structures, Discrete Math, Data Structures and Algorithms Current coursework: Database Management Systems, Computer Architecture, Foundations of Computer Science

#### John Jay High School, Cross River, NY

June 2018

GPA: 97/100

Awards - National AP Scholar, National Honor Society

Related coursework: Computer Science A, Computer Science principles

#### **Technical Skills**

Programming Languages: Java, C++, Python

Basic knowledge: JavaScript

Software: Git, Google AdWords
Basic knowledge: MATLAB, CAD

# **Experience**

TWST Events

May 2019 - August 2019

Marketing Intern

- Brought in house the Google Adwords search/display campaigns for conferences by setting up ads and keyword terms
- I implemented and taught the marketing team to use and optimize campaigns.
- Resulted in reduced in marketing budget and increased conference attendance.

Edu Tek May 2018 - June 2018

IT Intern

- Provided tech support for teachers at schools in the district.
- Upgraded hardware throughout school district by installing SSD drives in computers.
- Set up and maintained classroom connectivity to schools' networks.

Rising Stars September 2015 - May 2018

Coach

- Promoted healthy behavior among kids with disabilities by leading hour-long sport sessions. Set up drills and activities to engage the kids as much as possible.
- Strove to be a mentor and friend for the 30 kids.

#### **Projects Experience**

#### Data Structures and Algorithms (EECS 281)

Fall 2018

- Solved a series of complex algorithmic problems in C++.
  - E.g. backtracking, branch and bound (TSP), and Dynamic Programming
- Main challenge was optimizing solutions within strict runtime and memory constraints.

## **Evaluating Viability of Singular Value Decomposition in Predictor System**

Spring 2018

- Applied Singular Value decomposition to predict surveyed student movie ratings.
- Predicted human action 80% more accurately than random assignment.

## **Autonomous Drone Flight**

Fall 2018

 Utilized sensors, closed-loop feedback systems, and filters to autonomously program a drone through an obstacle course.

# Robotics FTC First

**September 2017 - May 2018** 

Lead Programmer

- Programmed manual and autonomous controls for the robot to perform various tasks.
- Organized the team and coordinated with hardware team.
- Placed in Super Regional round of the FTC FIRST Tech Challenge Tournament.

#### Columbia University, New York, NY

Summer 2017

Student During Summer Semester (Course Grade: A)

• Coursework: Introduction to Computing for Engineers and Applied Scientists (in Python).