



# Timothy Machnacki

## Software Engineer

Computer Science // University of Michigan '22

✉ tmachnac@umich.edu

☎ (248) 318-9475

🏠 tmachnacki.github.io

📍 Lake Orion, MI

## Relevant Courses

### EECS 183:

Elementary Programming Concepts

### EECS 280:

Programming & Introductory Data Structures

### EECS 281:

Data Structures & Algorithms

### EECS 370:

Introduction to Computer Organization

### EECS 376:

Foundations of Computer Science

### EECS 485:

Web Systems

### EECS 493:

User Interface Development

### EECS 494:

Game Development

### EECS 441:

Mobile App Development for Entrepreneurs

### EECS 481:

Software Engineering

### EECS 486:

Information Retrieval

## Skills

### Languages

Python, C++, C#, SQL  
JavaScript, HTML, CSS

### Frameworks & Libraries

ReactJS, Vue, Vuetify, Bootstrap,  
MDBBootstrap, Flask, Django, Jinja

### Other Skills / Tools / Apps

Office, Salesforce, InDesign, YouTube,  
PhotoShop, FL Studio, Logic Pro X,  
Unity Engine

## Interests

Sports, Lifting Weights, Fishing,  
Water Skiing, Christopher Nolan movies,  
Dogs

## Experience

### Software Quality Engineer Intern • Nexsys Technologies

June 2020 - August 2020, June 2021 - August 2021 // Detroit, MI

- Refactored / maintained / updated legacy code for ClearSign.
- Improved test suites based on performance analysis metrics
- Attended weekly "learn to code" sessions, delving into code base

### Advanced Simulation Technologies Intern • AVL Powertrain Engineering

June 2019 - August 2019 // Plymouth, MI

- Worked with software sales engineering team
- Projects included a five-year software sales analysis, report, and presentation; University Partnership Program SWOT analysis; and a marketing ROI data analysis
- Shadowed during code inspection and code reviews

### EECS 481: Software Engineering

January 2022 - April 2022 // University of Michigan // Ann Arbor, MI

- Assignments included creating high-coverage test suites (manually & automated), using mutation testing, defect detection via static analysis tools, implementing delta-debugging, and an open-source contribution

### Music Production

Sept 2016 - Present // Lake Orion, MI

- Manage website and YouTube channel; lease tracks to artists; and produce, mix, and master tracks
- Currently working on launching a new website

## Education

### University of Michigan • Bachelors of Science

Sept 2018 - April 2022 // Ann Arbor, MI

- Graduated with a major in Computer Science through LSA and 3.45 GPA

### Orchard Lake St. Mary's Preparatory • High School

August 2014 - May 2018 // Orchard Lake, MI

- Graduated third in class with a 4.21 GPA

## Achievements

### University of Michigan Men's Club Lacrosse Captain

October 2020 - April 2022

- Helped coordinate team practices and events on and off the field

### J.P. Morgan Chase EECS 183 Computer Science Showcase Winner

April 2019

- Awarded to a team based on project's complexity and ingenuity

### MHSCLA Academic All American

May 2018

- Awarded to a player based on lacrosse skills, sportsmanship, academic achievement, and quality of character