





# Pranav Chaudhary

 pranavc28.github.io

 pranavc28

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 pranavchaudhary

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## Education

University of Michigan, Ann Arbor

Class of 2022, Ann Arbor MI

Bachelor of Science, College of

Engineering - **GPA = 3.65**

Major—Mechanical Engineering and

Computer Science, Minor-

Entrepreneurship

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## Coursework

Multivariable Calculus

Differential Equations

Linear Algebra

Data structures and algorithms

Discrete mathematics

Machine learning (online)

Design and Manufacturing

Electrical Circuits

Signals and Systems

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## Skills

Languages

C • C++ • C # • Python • Java •

MATLAB

Web

JavaScript • React Native • SQL

• HTML+CSS • Selenium

Machine Learning

R • TensorFlow

Tools

CAD • Manufacturing • SolidWorks •

Siemens NX • Teamcenter • Mill and

Lathe • ANSYS • Git • Bash • Visual Studio

• Jira • Linux • XCode • Arduino IDE

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## Awards

Dean's List (August 2018 - May 2019)

University Honours (August 2018 - May 2019)

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## Clubs

IEEE • Bursley Multicultural Council •

Michigan Electric Racing • Pi Tau Sigma •

Service Chair

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## Work Experience

Seeking internships for summer 2021

**Material Mechanics Lab (NASA Project) | Undergraduate Researcher**

January 2020 – Present, Ann Arbor MI

- Built python scripts to generate and test Kagome triangular lattices.
- Developed machine learning tools for testing data to improve lattices.
- Analyse data to create FEA models, which predict material properties.

**Michigan Electric Racing (FSAE Electric) | Data Analysis Programmer**

August 2018 – Present, Ann Arbor MI

- Wrote MATLAB scripts to analyse thousands of tire data points and plot graphs like the traction circle, for tire choice and suspension design.
- Wrote algorithms and scripts to measure the battery's state of charge.
- Collected and analysed suspension forces data from installing sensors.
- CAD, Manufacture, FEA of suspension components such as the rockers.

**Nanaksar Crafts and Repairs | Summer trainee**

June 2017 – July 2017, Nairobi Kenya

- Assembled 4-piston and V8 engine. Learned about different components of an engine and the ways in which they are assembled.
- Interacted with customers to sell engines that were assembled by us.
- Used customer feedback to improve the labor division for fixing engines.

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## Project Experience

**Autonomous Drone Navigation | Programmer**

August 2018 - December 2018, Ann Arbor MI

- Coded a drone to autonomously navigate a course using C++.
- Integrated drone with BeagleBone, Arduino, Mission Planner Software.
- Implemented PID control and response filters with RC circuits, Op Amps.

**Command Line Euchre | Programmer**

May 2020 – July 2020, Ann Arbor MI

- Utilized C++ to make a command line interface for Euchre, a card game.
- Developed complex, random bot strategies to create game environment.
- Tested and debugged using unit test framework macros.

**ImageResizer | Programmer**

May 2020 – July 2020, Ann Arbor MI

- Implemented computer vision model using C++ to remove low cost pixel seams for changing the image size.
- Tested and debugged using unit test framework.

**Remote Controlled Robot | Team Lead**

August 2019 - December 2019, Ann Arbor MI

- Lead one of the two teams, out of 15, to complete the tasks required.
- CAD (SolidWorks) and manufacture all components of the robot.