Pranav Chaudhary

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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 – Computer Science

Coursework

Differential Equations
Linear Algebra
Programming and Data Structures
Discrete mathematics
Machine learning (online)
Design and Manufacturing
Electrical Circuits
Signals and Systems
Entrepreneurial Creativity
Economics: Financial Markets

Skills

Languages

C • C++ • C # • Python • Java • MATLAB • R • APDL

Web

JavaScript • React Native • HTML+CSS

Tools

SolidWorks • Siemens NX • Teamcenter • Mill and Lathe • ANSYS • Abaqus • Git • Bash • Jira • Linux • XCode • Visual Studio Code • Docker

Awards

Dean's List (2018 - 2019)
University Honours (2018 - 2019)

Clubs

IEEE • Bursley Multicultural Council (Head of Logistics) • Michigan Electric Racing • Pi Tau Sigma

Experience

Seeking internships for summer 2021

Innoviz Technologies | *Software Engineer (TechLab at MCity 2020 cohort)*

August 2020 - Present, Ann Arbor MI

- Implement data analytical techniques to test LiDAR sensor technology for autonomous driving cars at MCity, one of the world's few smart city models.
- System integration of sensors and traffic light computer vision algorithms.
- Study mobility companies cases to improve project management skills.

Material Mechanics Lab | *Undergraduate Researcher*

January 2020 – Present, Ann Arbor MI

- Built python scripts to generate and test Kagome triangular lattices.
- Analyse data from material experiments, for FEA of lattices.
- Write scripts in Abaqus, for FEA, when 3D printing lattices - improves designs.

Michigan Electric Racing (FSAE Electric) | *Suspension Analysis Lead*

August 2018 – Present, Ann Arbor MI

- Wrote MATLAB scripts to analyse and graph 1000s of tires data points.
- Wrote algorithms and scripts to measure the battery's state of charge.
- Collected and analysed suspension forces data from installing sensors.
- CAD and manufacture components such as the rockers using Siemens NX.

Projects

Autonomous Drone Navigation | Team *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.

Image Rescaler using Computer Vision | *Programmer*

June 2017 – July 2017, Ann Arbor MI

- Implemented computer vision model using C++ and algorithms to remove low cost seams for content-aware resizing.
- Program removes unnecessary image pixels and retains overall image quality.

Remote Controlled Robot | *Team Lead*

August 2019 - December 2019, Ann Arbor MI

- Lead one of the 2 teams, out of 15, to complete the tasks required.
- CAD (SolidWorks) and manufacture (Mill and Lathe) robot.
- Designed a robot that pushed down a drawbridge and crossed a gravel pit.