

PRANAV CHAUDHARY

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Education

University of Michigan, Ann Arbor

Bachelor of Science in Engineering

Major: Computer Science

Clubs/Programs – TechLab at MCity, Materials Lab, Michigan Electric Racing, IEEE, Pi Tau Sigma, Bursley Multicultural Council

Ann Arbor, MI

Graduating in 2023

GPA: 3.61/4.00

Experience

Google

Incoming Software Engineer Intern

May 2022 – August 2022

New York, NY

ITHAKA (JSTOR)

Software Engineer Intern (Full Stack Role for FORUM web app)

May 2021 – August 2021

Ann Arbor, MI

- Single handedly coded a mapping interface for pairing metadata with field types that reduced user interaction by about 40% and reduced the development cycle of the MVP by about 3 weeks. Wrote unit tests in Jest, and collaborated with the UI product designer.
- Interacted with users and watched several UI usability tests to create designs for development for at least 30 total hours after work.
- Created a rotate image feature that allowed users to rotate and publish images to the JSTOR web app, for about 10-20% of images.
- Solved prod issues and improved workflow for web app, which is tightly integrated with AWS, using Python, Vue.js and jest unit tests.

DeepMap Inc.

Software Engineer Intern (TechLab at MCity 2020-2021 Cohort Member)

January 2021 – May 2021

Ann Arbor, MI

- Optimized vehicle routing in python using Google OR tools to improve map navigation by providing color feedback for road changes.
- Created a python tool to parse JSON map output to automate initial analysis, which reduced the development cycle by 1.5 months.
- Coded an interactive HD map using the networkx library, to show the path of traversing between roads and total road changes.

Innoviz Technologies

Software Engineer Intern (TechLab at MCity 2020-2021 Cohort Member)

August 2020 – December 2020

Ann Arbor, MI

- Implemented a RESTful python controller that uses LiDAR to detect pedestrians, that may save 10,000s of lives in proving safety.
- Successfully integrated LiDAR hardware with perception software and used the MCity infrastructure API to change traffic lights.
- Used MCity traffic light APIs to relay real time data to controller, which allowed us to meet 100% of our project's KPIs.

Michigan Electric Racing (Formula Electric FSAE Team)

Suspension Analysis Lead

August 2018 – November 2020

Ann Arbor, MI

- Analyzed 1000s of tires data points for 2020 racecar using MATLAB plotting. The best decision out of 18 choices was made.
- Lead the team that selected and mounted potentiometer sensors, to analyze data and improve 70% suspension designs.
- Designed and analyzed suspension using Siemens NX and ANSYS. Manufactured jigs and components using Mill and Lathe.

Projects

Instagram Clone

Programmer

October 2021 – November 2021

Ann Arbor, MI

- Created a Python backend using Flask, that interacted with REST API endpoints. All data was stored in a SQLite3 database.
- Front-end was developed using a React.js framework, that involved components like the “like” button, and infinite scroll.

Search Engine

Programmer

November 2021 – December 2021

Ann Arbor, MI

- Evaluated the PageRank of each page using a python script and served inverted index and PageRank data on a Restful API using Flask for the back end, and built a UI to query the API. Successfully tested the pipeline on a pre-scraped library of 1000's of Wikipedia pages
- Built a custom multi-threaded MapReduce framework with TCP/UDP sockets to distribute tasks to workers.

LearnBud Web App

Programmer

June 2021 – August 2021

Ann Arbor, MI

- Created a Flask web app, using a MySQL database and a React.js UI, that dynamically matched students with similar interests.
- Used AWS RDS database with a MySQL setup to store data, and transform a google forms doc into a web app.
- Developed a backend service in Python using REST APIs to group students with similar interests.

Skills and Awards

Languages – C++, C, MATLAB, Python, Java, MySQL, SQLite3

Web design – JavaScript, React.js, Vue.js, HTML, CSS, Google Analytics, Jest

IDE and Tools – Github, Gitlab, Agile, Visual Studio, VS Code, XCode, Docker, Linux, Bash, Git, SolidWorks, Siemens NX, Teamcenter

Awards - **Dean's List (2018 - 2019) | University Honors Award (2018 - 2019) | Pi Tau Sigma – Honor Society**

Spoken Languages – English, Hindi, French