

# Vijay Ravi

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## Overview

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Results-driven developer with a strong foundation in algorithmic thinking, aiming to apply my analytical skills in full-stack development, machine learning and/or data science

## Technical Proficiencies

**Languages/Frameworks:** Python, R, Java/JEE, SQL, C++, C, HTML5/ CSS3, JavaScript, TypeScript, RESTful API, Lua

**Libraries:** Spring Boot, React, Angular, Numpy, Pandas Matplotlib, OpenCV, Pytorch, YOLO

**Technology stack/Tools:** Google Cloud Platform (GCP), mainly Firebase, Vertex AI, App engine, and Datastore. Git for version control.

## Education

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### University of Michigan, Engineering

**Ann Arbor, MI**

*Bachelor of Science in Computer Science, Minor in Data Science*

Expected Graduation, May 2026

- GPA: 3.78 / 4.0
- Courses: Data Structures and Algorithms, Statistics, Data Science, Machine Learning, Database Management
- Activities: MFLY Autonomous - Computer Vision, Intro to Statistics Grader, Carnatic Violin, Cross Country
- Certifications: Google Certified Professional Machine Learning Engineer

## Technical Experience

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### Siemens

**Troy, MI**

*Fullstack Software Engineering Intern*

May 2025-Aug. 2025

- Engineered and validated a new feature, allowing personalized dashboards across the entire Teamcenter client
- Architected full-stack enhancements by creating custom SOA calls and extending existing data models on the server to support additional client functionality using OOP paradigm principles
- Fulfilled client enhancement requests and resolved internal defect reports
- Collaborated across teams and product owners to present tech demos and establish UI/ UX guidelines

### Helivox

**Troy, MI**

*Lead Developer*

Jan. 2021-Aug.2023

- Designed and created the Helivox website by applying Angular through Firebase and trained team members to manage and develop the site using git source control
- Supported 200+ users using a Spring Boot server hosted on google cloud with authentication and pagination

## Research Experience

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### University of Michigan, DIAG

**Ann Arbor, MI**

*Team Lead*

Jan. 2024-Current

- Enhanced up to 12 premade classification models such as slide flow with advanced models built on architectures such as ResNet and U-Net, tailored for our novel dataset of 100+ Glioblastoma Multiforme slide images
- Organized a team of 4 to distribute work on applying techniques such as Bayesian Prism to analyze cell pathways

### Wayne State University, Autonomous Vehicle Lab

**Detroit, MI**

*Assistant Researcher*

June. 2022-Aug. 2022

- Worked in a 2-3 person team to find a theoretical model for determining autonomous vehicle camera failure
- Evaluated varying architectures built on OpenCV, achieving accuracy scores of ~80% for generic failure classification on 10,000+ samples