# Siddhartha Bhattacharya

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# EDUCATION

## Michigan State University

East Lansing, MI

Bachelor of Science in Computer Science, Minor in Mathematics

Aug. 2021 - Present

### EXPERIENCE

## Software Engineer Intern

May 2023 – Present

Farmington Hills, MI

ZF Friedrichshafen

- Designed and implemented a test automation framework to streamline black-box testing procedures for vehicle front-facing cameras, resulting in 90% reduction in test execution time from manual testing.
- Developed automation framework using Embedded C and Python to communicate with hardware debuggers and micro controllers.
- Collaborated with integration team to write scripts to facilitate communication between front-facing cameras, Lauterbach debuggers, power supplies, and connected bench hardware

## Teaching Assistant

Jan. 2023 – Present

Michigan State University

East Lansing

- Responsible for instructing weekly lab sections of 51 students in introductory Python.
- Provide mentorship and guidance for students during office hours to promote overall development and confidence in programming.

#### Construction Laborer

May 2022 – Aug. 2022

Michigan Highway Contracting

Livonia, MI

• Assisted in roadside and highway construction of embankment leveling, seeding, blanketing, and sodding.

# PROJECTS

## Slope Stat | GraphQL, Node.js, MongoDB, Python

Jan. 2023 – Feb. 2023

- Developed a web application for ski resort status tracking
- Leveraged GraphQL and Node.js to efficiently store and query data such as lift and trail status, snowfall, and base depth from hundreds of ski resorts

## MoveMaster | TensorFlow, TypeScript, Next.js, Git

 $June\ 2020-Present$ 

- Developed a full-stack web application using TypeScript serving a REST API with React as the frontend
- Leveraged machine learning techniques with TensorFlow BlazePose to accurately analyze and correct exercise form in real-time
- Recommended exercises and gave feedback to users on their technique through a video recording and analyzing joint movement

#### **Discord Stock Bot** | pandas, discord.py, IEX Cloud, Polygon API

May 2019 – Aug. 2020

- Developed a stock and equities monitoring Discord bot using Python and various REST APIs to assist over 2000 traders in their fundamental analysis and market research
- Enabled users to streamline their research by providing personalized watch-lists, live quotes, and balance sheets

#### TECHNICAL SKILLS

Languages: Python, C/C++, ARM Assembly, Java, JavaScript, HTML/CSS

Frameworks & Libraries: ROS, GraphQL, React, Node.js, MongoDB, pandas, NumPy, Matplotlib

Developer Tools: Git, VS Code, PyCharm, Jupyter, Eclipse