# Sparsh Shrivastava

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## **EDUCATION**

University of Michigan, Ann Arbor, MI — Data Science

August 2024 - April 2026

Michigan State University, East Lansing, MI — Computer Science

August 2023 - April 2024

**Relevant Coursework**: Data Structures & Algorithms, Linear Algebra, Discrete Mathematics, Multivariable Calculus, Statistics & Probability, Programming and Intro Data Structures

## **EXPERIENCE**

Altair Engineering • Troy, MI — Software Development Intern

May 2024 - August 2024

- Developed 'Unit Manager' backend for Altair's CAD software 'Inspire'
- Honed expression-parsing C++ code and simultaneously developed streamlined Python scripts
- Incorporated intricate mathematics to develop hundreds of unit conversions to create fully functional Unit Manager
- Successfully eliminated any possible bottlenecks in 'Inspire' backend whilst bolstering efficiency

CSE 102 • East Lansing, MI — Undergraduate Learning Assistant

January 2024 - April 2024

- Oversaw and organized multiple classes a week of 30+ undergraduate students
- Instructed students on basic/intermediate Python topics
- Elevated students' critical thinking skills and programming abilities

## Mathnasium • Birmingham, MI — Tutor

July 2022 - May 2023

- Provided exemplary math tutoring 12-16 hours a week
- Rendered indispensable teaching services K-12
- Vastly improved students' grades from C's and D's to desired scores of A's and B's
- Spearheaded workplace organization by organizing upwards of 35 student binders a week

## **Robotics • FRC 226, Troy, MI** — Scouting Lead • Design Team

June 2019 - June 2023

- Developed a highly proficient skill set: Java, Python, CAD, Power BI, Leadership, etc.
- Instructed a team of 150+ the applications and functionality of Power BI and CAD softwares
- Obtained a variety of soft skills and acted as a mentor for chairman's/impact award speakers
- Developed multiple data analysis programs using Python and Power BI to both quantify and qualify data

## PROJECTS – Accessed through personal website

## Tax Calculator & ETF/Stock Predictor – Creator

- Sourced public datasets from Kaggle for both current state tax rates and older stock prices
- Utilized multiple Python libraries such as Pandas, Numpy, and Scikit-Learn to predict taxes owed for single filers, and future stock prices from a point in time
- Developed and trained ML models using aforementioned data and libraries
- Implemented Linear Regression Models (Machine Learning) to accurately predict and plot prices for specific ETFs: DOW, NASDAQ, S&P 500
- Showcased statistical knowledge by expressing statistical values explaining data accuracy

## **SKILLS**

- Proficient in
  - o C++, Python, Java, HTML, CSS
  - o Git, Visual Studio, Microsoft Power BI
- Created a personal website showcasing who I am and what I like to do!
  - https://solarguy14.github.io/SolarSite/