

Dhruv Chavan

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EDUCATION

The Ohio State University

B.S. in Data Analytics - *Honors and Scholars Student*

Expected Graduation: May 2027

GPA: 3.7/4.0

SKILLS

- **Languages:** Python, SQL, Java, R, HTML, MATLAB
- **Tools:** GitHub, AWS, Microsoft Office, Tableau, PyCharm, SwiftUI, ARKit, SceneKit, Power BI
- **Frameworks/Libraries:** PyTorch, SciKit-Learn, Tensorflow, Matplotlib, Pandas, Numpy, Seaborn, Scipy.io

EXPERIENCE

Data and AI Engineering Intern | *Python, PostgreSQL, PyTorch, LLMs*

September 2025 - December 2025

BMW Financial Services

Columbus, OH

- Created machine learning and Gen AI solutions, enabling data scientists to cut model training cycles by **30%**
- Built MCP tools for internal LLM use cases and database design, improving **40%** of data retrieval efficiency
- Showcased progress to stakeholders through presentations and demonstrations of AI-driven solutions

Undergraduate Aerospace Researcher | *Python, MATLAB, Kalman Filter*

January 2025 - Present

Department of Mechanical and Aerospace Engineering at OSU

Columbus, OH

- Building lightweight machine learning models for on-drone wildfire classification using aerial imagery
- Developing a custom Inertial Measurement Unit using Arduino, BNO055, and ESP32 for indoor drone navigation
- Implementing a Kalman Filter that reduces orientation error by **85%**, improving flight path stability in test runs

Undergraduate Student Researcher | *Python, Pandas, Power BI, MySQL, Matplotlib*

July 2024 - Present

OSU Wexner Medical Center - Assistive Technology Data Analysis

Columbus, OH

- Analyzing **4,000+** patient data points; findings presented to clinicians led to a **25%** improvement in outcomes
- Applying hypothesis testing to identify demographic correlations and create visual representations
- Published research as second author at the international RESNA conference and attended the 2025 Rehabweek

Undergraduate Computational Biology Researcher | *Python, R, Pandas*

February 2024 - June 2025

Nationwide Children's Hospital - Computational Modeling in Immune Response

Columbus, OH

- Developed advanced visualizations to analyze brain cancer cell interactions with immune cells
- Analyzed **1.2M+** spatial data points from **30+** tumors, revealing cell clustering linked to ICI response
- Submitted paper to *iScience* journal after designing algorithms to analyze tumor structures across cell types

LEADERSHIP

Mount Scholars Leadership Society | *Member*

August 2023 - Present

- Led Team Security initiatives and developed leadership through weekly training, mentorship, and retreats
- Completed **75+ hours** mentoring athletes with Down syndrome through weekly tennis sessions and events

PROJECTS

Animal Image Classification ML Model | *PyTorch, SciKit-Learn, TensorFlow, Pandas, Python* **June 2024**

- Designed an object-oriented CNN using TensorFlow and Keras to classify animal images with **98.2%** accuracy
- Trained on a balanced dataset of five animal classes, applying data augmentation to improve robustness.
- Optimized performance with multiple convolutional and pooling layers to enhance feature extraction and accuracy

Lymphedema Scanner App | *iOS Dev, Swift UI, ARKit, SceneKit, Xcode, Firebase*

February 2024

- Won 1st place in OSU Appathon with a **95%**-accurate lymphedema detection iOS app
- Implemented ARKit and SceneKit in Xcode with SwiftUI, using vector grids for facial volume capture
- Integrated Google Firebase to manage user authentication and securely store authentication data