

Archan Tulpule

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EDUCATION

Michigan State University, East Lansing, MI

College of Engineering, *Bachelor of Science, Computational Data Science*

May 2025

Broad College of Business, *Bachelor of Arts, Marketing*

May 2025

Honors College, GPA: 3.932/4.000

TECHNICAL SKILLS

- Programming Languages: Python, C++, R, SQL
- Data Analysis & Visualization: Pandas, Numpy, Matplotlib, Seaborn, Tableau, Microsoft BI, Plotly
- Machine Learning: Scikit-learn, TensorFlow (Keras)
- Tools & Technologies: Git/GitHub, MySQL, RStudio, VS Code, Jupyter Notebooks, Excel, Word, PowerPoint

PROFESSIONAL EXPERIENCE

Quickwork, Mumbai, India

June 2023 – August 2023

Internship, Business Consultant

- Documented ~10 past client solutions; captured scope, pain points, and factors affecting client decision-making by conducting interviews with 5+ employees across 3 teams
- Designed new product offering targeting rapidly growing sector of 1000+ potential clients by profiling firm's ~5 key clients per similarities identified in case documentation
- Delivered ~10-slide PowerPoint presentation to CEO, recommended new product offering, led to presentation to CMO and Marketing/Sales team, enabled firm to tap into high growth market

Michigan State University, East Lansing, MI

September 2021 – May 2023

Professorial Assistant

- Facilitated research of ~2 study teams by implementing data extraction pipeline for NSF granted \$1.2 million research initiative: https://www.nsf.gov/awardsearch/showAward?AWD_ID=1928278&HistoricalAwards=false
- Converted ~20 mp4 files into CSV data using Microsoft Stream and Excel, captured speech sentiment statistics using Python and R, saved 11+ human hours
- Identified major data accuracy bottleneck for transcription, suggested different methodology for capturing video speaker transcripts, increased accuracy by 20%

TECHNICAL PROJECTS

NP-hard Set Cover Solution: <https://github.com/tulpulea/SetCover.git>

- Converted homework solution for set cover problem from CSE 431 class from Python into C++
- Created SetCover class for efficient use of memory
- Implemented Branching and Bounding for pruning of solution search space

Image classification project: https://github.com/tulpulea/ChestCT_CNN.git

- Created Convolutional Neural Network using Tensorflow for Chest CT-Scan data in Python
- Conducted Hyperparameter tuning and optimized model accuracy
- Improved final model accuracy from ~40% to 86% by implementing robust train-test split

EXTRACURRICULAR INVOLVEMENT

Events Chair, Broad International Student Council, MSU

May 2023 – Present

- Planned 16 events; collaborated with team of 12; averaged 30 attendees per event; won 2024 Broad Gala Identity-Based Club of the Year award: https://www.instagram.com/p/C6IOfetAV5y/?img_index=1

President, Indian Student Organization, MSU

June 2023 – Present

- Established 3 Organization Executive Board committees; coordinated with team of ~15 to execute 10+ cultural events; delivered 5 funding presentations to raise \$5,000+ in funds; increased major event attendance by ~50%
- Earned 2024 MSU International Students Association Outstanding Affiliate Award: https://www.instagram.com/p/C48xGU-AaQS/?hl=en&img_index=3