

Apurva Aggarwal

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EDUCATION

Michigan State University

Bachelor of Science in Computer Science, Minor in Business

East Lansing, MI

Dec 2026

- **GPA:** 3.8 — Dean's List (Top 1% amongst 500)

- **Relevant Coursework:** Cloud Development, Biometrics, Artificial Intelligence, Big Data Analysis

TECHNICAL SKILLS

Programming: Python, C/C++, SQL, JavaScript, R, Assembly

Libraries: TensorFlow, scikit-learn, Pandas, Matplotlib, Streamlit

Data Tools: Excel, Tableau, Azure, Docker

Web Dev: HTML/CSS, Flask, React, Node.js, Figma

EXPERIENCE

Technology Consulting Intern – Ernst & Young (EY) | Singapore

May 2025 – Aug 2025

- Led UAT sessions with 100 stakeholders to validate migration of **10k+ records**, log bugs, and support beta testing
- Optimized **SQL scripts** in SSMS to automate migration checks, cutting manual QA efforts by **50%**
- Configured **Azure Blob Storage** to modernize file systems, enabling scalable and cloud-native architecture
- Delivered key modules for a **\$13M enterprise system** by managing test pipelines and sprints in **Azure DevOps**

Data Analyst – The Global Career Accelerator | Remote

Aug 2024 – Dec 2024

- Conducted **exploratory data analysis** and **customer segmentation** for clients in e-commerce, media, and education sectors to uncover trends and optimize operations
- Led **A/B testing initiatives** and performed **statistical analysis** to evaluate campaign effectiveness, newsletter performance, and digital conversion strategies
- Developed **data-driven recommendations** for market expansion, support team resourcing, and retention strategies using KPI tracking and regional demand modeling
- Transformed unstructured datasets into **clean, actionable insights** using SQL, Excel, and visualization tools, informing high-level business decisions across functions

PROJECTS

Micro Foods Market (Backend) | Docker, Flask, REST API, SQLite, JWT

Apr 2025

- Engineered **5 microservices** (auth, product, order, search, logging) using Flask and **RESTful APIs** for modularity
- Implemented **JWT-based authentication** to manage user and employee access securely across distributed services
- Configured Dockerized services enabling container communication and **cloud-deployment readiness**

Intel Sustainability Analysis | Tableau, Data Visualization, Market Research

Nov 2024

- Designed **Tableau dashboards** analyzing **U.S. energy trends**, ranking **5 regions** based on net energy surplus
- Developed a **data-driven site selection model**, optimizing Intel's **cost efficiency** and **carbon neutrality targets**
- Incorporated **time-series forecasting**, enabling Intel to predict future energy availability and infrastructure demands

Grammy Audience Analysis | Excel, A/B Testing, KPI Analysis

Oct 2024

- Uncovered seasonal user spikes by analyzing Grammy.com traffic trends, informing engagement strategy for marketing team
- Benchmarked post-restructuring site metrics in Excel, revealing **higher bounce rate** and lower session duration
- Ran A/B test on pages/session, using Excel to validate separation strategy and **recommend UX improvements**

FarmX (MHacks 2024 Winner) | Python, Streamlit, scikit-learn, Pandas, NumPy

Sept 2024

- Built an end-to-end **ML pipeline** with **Random Forest**, optimizing nitrogen levels and reducing waste by **25%**
- Deployed a **scalable backend** with **Streamlit**, integrating **data caching using Pickle** for a **30%** faster response time
- Processed **agricultural datasets** using **Pandas** and **Matplotlib**, providing insights and recommendations for farmers
- Integrated **weather and soil condition APIs**, allowing real-time adjustments to nitrogen recommendations

Harvard CS50x | C, Python, SQL, Flask, Web Dev

July 2023

- Created a **spell-checker** using **hash tables**, improving word lookup speed and memory efficiency
- Developed a **stock trading platform** with Flask, SQL, and real-time market data integration
- Optimized core **algorithms and data structures** (e.g., mergesort, binary search) for fast data processing
- Designed **secure full-stack apps**, leveraging REST APIs, OOP, and session-based authentication

LEADERSHIP & INVOLVEMENT

SpartaHack, Michigan State's Hackathon – Logistics Lead

Artificial Intelligence Club – Project Developer

MSU Student Life & Engagement – Resident Assistant

International Student's Organization – RHA Representative

Instagram Content Creator – Produced music content reaching 20K+ views across 10+ videos