Apurva Aggarwal

201-551-9782 | aggarw86@msu.edu | linkedin.com/in/apurva0510 | github.com/apurva0510

Education

Michigan State University East Lansing, MI
Bachelor of Science in Computer Science, Minor in Business *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