

# Maria Monica Manlises

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## SUMMARY

Results-driven leader and research assistant with a keen interest in applying machine learning to human-computer interaction, and natural language processing fields. Pursuing opportunities to apply and enhance abilities in data science and machine learning through meaningful internships to contribute to cutting-edge research and development.

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## EDUCATION

### De La Salle University, Manila (DLSU-M)

Expected Dec 2026

*Bachelor of Science (Honors) in Computer Science and Master of Science in Computer Science*

- Consistent First Honors Deans Lister, CGPA: 3.973/4.0 (Summa Cum Laude Standing)
- Recipient of the Archer Achiever Scholarship Grant

### St. Stephen's High School (聖公會中學)

May 2021

*Senior High School, Science, Technology, Engineering, and Mathematics (STEM Strand)*

- First Honorable Mention, General Average: 98.99/100
  - Recipient of the Gokongwei Brothers Scholarship, Stephenian of the Year Award, Outstanding Leader Award
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## RESEARCH EXPERIENCE

### DLSU Dr. Andrew L. Tan Data Science Institute (ALTDSI)

May 2023 - May 2024

*Research Assistant with Dr. Macario Cordel II*

A Prediction Model-based Decision Tool for Airline Fuel Consumption Management

- Performed exploratory data analysis and pre-processing on 70,000 flight data from a partner airline
  - Designed and executed MySQL database models for 15 aircraft types across 4 levels of granularity
  - Designed prediction models, with the single-step autoregressive model producing the highest  $R^2$  value
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## WORK EXPERIENCE

### Foodpanda (Delivery Hero Philippines, Inc.)

Apr 2024 - June 2024

*Data Analytics Intern – Logistics and Operations*

- Conducted data extractions, cleaning, and visualizations using BigQuery and LookerStudio
- Automated a key operations tracker cutting weekly monitoring time by 90% and reducing manual data processing
- Provided data-driven insights to support decision-making for the Logistics and Operations team and CEO office

### KonsultaMD

Oct 2022 - Jan 2023

*Product Intern*

- Produced graphs on 7,000 stores across the top 5 pharmacies in 13 regions for competitor analysis
- Generated price comparison data points for 750 medicine products across 4 online pharmacies
- Designed customer journey maps and traits of 4 user personas toward UX and market research

### Freelance

Sep 2022 - Dec 2023

*Mathematics Tutor*

- Taught algebraic concepts to high school students and synthesized 10 reviewers and session materials
  - Fostered students' appreciation for mathematics while ensuring a 100% passing rate
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## ORGANIZATIONAL EXPERIENCE

### Professor Widom's Instructional Odyssey at DLSU Philippines 2024

*Teaching Assistant*

Sep 2024

- Assisted the Dean of Stanford University's School of Engineering along with 4 co-teaching assistants
- Taught 300+ attendees on Spreadsheets, Tableau, Python, and SQL for data science and machine learning

### DLSU Association for Computing Machinery Chapter

*Chair, AY '23-'24*

Sep 2023 - Aug 2024

- Supervised a team of 21 officers in the planning and execution of 15 applied computing activities
- Coordinated with international ACM Distinguished Speakers for seminars garnering 100 to 250 attendees

*Founding Vice Chair, AY '22-'23*

Sep 2022 - Aug 2023

- Chartered a local chapter with 70 members to foster research interest in applied computing fields
- Executed the Open Lab Day to showcase the college's 10 research labs, drawing over 300 attendees

## Peer Tutors Society

Executive Vice President, AY '23- '24

Sep 2023 - Aug 2024

- Assisted the president in the management of 12 organization events and 4 committees

Vice President for Internal Affairs, AY '22- '23

Sep 2022 - Aug 2023

- Supervised website improvements to increase tutor-tutee matching rate from 94.61% to 98.51%
- Matched 335 tutor requests among an average of 30 tutors across 3 terms of an academic year

Tutor

Nov 2021 - present

- Taught 20 peers on subjects in discrete structures, programming, artificial intelligence, and mathematics

## La Salle Computer Society

Nov 2021 - Aug 2023

Associate Vice President for Academics September 2022 – present

- Spearheaded group studies in preparation for students' midterm and final exams
- Assembled reviewer distribution drives through Google Drive and GitHub Repositories

Project Head, Technology Summit 2023 December 2022 – present

- Led a team of 60 members across 6 committees, mainly in charge of programs and logistics
- Coordinated with 6 guest speakers for major forums, talks, and workshops that garnered 300 viewers

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## OTHER AFFILIATIONS

- Research Member - DLSU Center for Language Technologies (CELT)
- Student Member - Association for Computing Machinery (ACM)
- Member - DLSU SPRINT (College of Computer Studies Honors Society)
- Former Research and Academic Affairs Chairperson - Computer Batch Government (CATCH2T25)

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## PROJECTS

### Point n Move: Designing a Glove-Based Pointing Device

Created a wearable input prototype using an MPU6050 accelerometer-gyroscope sensor programmed with Arduino. Adjusted the threshold and sensitivity values across 2 iterations of user testing with participants aged 18-25. Achieved improved task completion times of 9 to 15 seconds, indicating high reliability and potential for future development.

### Transaction Management in a Distributed Database Management System

Designed and implemented a web application interfacing with a distributed database handling medical appointment data across 3 cloud servers. Implemented master-slave node configuration and replication strategies to ensure global concurrency control and crash recovery. Achieved 100% successful outcomes during automated simulation testing.

### Administrative Platform for an Early Childhood Education Training Program

As the Scrum Master, led a cross-functional team of nine through four consecutive two-week sprints, completing 100% of the Scrum points and 100% client satisfaction, facilitated by the effective utilization of Jira for sprint progress monitoring.

### Spam and Ham Detection

Conducted a meticulous comparative analysis of Multinomial Naive Bayes and Logistic Regression algorithms for spam vs ham message detection, achieving F1 scores of 96.84% and 96.67%, respectively.

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## COMPETITIONS

- Most Popular Project Pitch - Asian Undergraduate Symposium 2024 (National University of Singapore)
- 1<sup>st</sup> Runner Up - P&G NEXT Leadership Camp 2024 (ERD construction, data population, PowerBI analysis)
- Top 25 - 2022 Shopee Ultimate Case Challenge (ETA prediction improvement through machine learning)
- Top 200 / 2400 participants - 2022 Shopee Coding League
- Champion, 1<sup>st</sup> Runner-Up - DLSU Clash of the Brains Programming Competition, Quiz Bee
- Gold Award - 2020 International Kangaroo Mathematics Competition
- 2nd Runner-Up - 2019 Robolympix: Creative Competition
- Bronze Award - 2018 Bulgaria International Mathematics Competition Individual Contest
- Champion - 2018 Bulgaria International Mathematics Competition Team Contest

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## SKILLS

- C, C++, Python, Java, Go, SQL, Arduino, Prolog, HTML, CSS, Javascript, Verilog, x86-64
- Pandas, Scikit-learn, NLTK, PyTorch, TensorFlow, Keras, SciPy, Matplotlib, MERN, PERL
- BigQuery, LookerStudio, Figma, Canva, Adobe Creative Cloud, Notion, Jira, Microsoft Office, Google Suite
- English, Filipino, Chinese Fookien, and Chinese Mandarin