# Mark Niccollo L. Dayrit

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## TECH SKILLS

**Programming:** Java, JavaScript, Python, MySQL

**Frameworks:** React, Tensorflow, Keras

## EDUCATION

### **National University - Lipa** — *Computer Science*

2022 - PRESENT, LIPA CITY, BATANGAS

Relevant Coursework: Systems Programming, Data Structures and Algorithms, Advanced Machine Learning, Deep Learning, Software Engineering

iNUvators member, Deans Lister, TOEIC Exam Score: 850

### **APEC Schools - JRU Lipa** — *Science, Technology, Engineering and Mathematics*

2019 - 2020, LIPA CITY, BATANGAS

## PROJECTS

### **Legal Aid at Your Access (LAYA): (APPCON Submission)** — *iNUvators*

Developed a bilingual conversational AI system for Philippine law using Microsoft Azure's Conversational Language Understanding (CLU). As part of the AI training team, I handled web scraping of more than 3,000 legal documents from sources like Lawphil.net and various local law firms, including Republic Acts, Constitutional Acts, and other public legal materials. I also assisted in data annotation and context optimization within Azure to strengthen entity recognition and improve response accuracy.

- The model obtained an **F1 score of 84.43%**, with a **Precision of 85.22%** and **Recall of 83.65%** across 3,000 training and 600 testing utterances.
- Worked on data preprocessing, multilingual intent classification, and legal-domain entity extraction to support AI-driven legal information access.
- The project was submitted for publication in *Data in Brief*.

### Using KNN on predicting Enrollment Probability, for NU-Lipa Admission: (School Commission)

I was one of the handpicked individuals selected to develop this project, where I was responsible for designing and developing the frontend interface to ensure a user-friendly and visually appealing experience.

### AI Orange Classification

Developed an image-based Orange Classifier using the EfficientNetB0 architecture as part of a deep learning course project. Responsible for dataset preparation, image preprocessing, augmentation, model training, and fine-tuning in Google Colab to support users with limited local hardware. Applied transfer learning techniques to improve feature extraction and classification performance for distinguishing oranges from non-orange objects.

Achieved an **F1 Score of 0.99609**, **Precision of 0.99612**, **Recall of 0.99609**, and **Accuracy of 0.99609**.

Contributed to model evaluation, performance optimization, and practical implementation of CNN-based image classification for real-world use cases.

### **NALA Frontend** — *iNUvators*

Developed a responsive web application for translating Philippine dialects as part of our Software Engineering project, where I was responsible for designing and implementing the frontend interface.

## ADVANCEMENT AND PARTICIPATIONS

### **CHED Lakas** — *Certificate of Participation Holder*

OCTOBER 25, 2023, NATIONAL UNIVERSITY - LIPA

A conference for computing educators, researchers, and professionals in the Philippines and nearby countries.

### **APPCON 2023** — *Represented NU-Lipa as part of 'iNUvators' Nationwide*

OCTOBER 23 - APRIL 2024, NATIONAL UNIVERSITY - LIPA

Made "LAYA", an AI application in terms of the theme "A web or mobile application to address social issues in the Philippines".

### **24th Philippine Computing Science Congress** — *Certificate of Participation Holder*

MAY 9 - 11, 2024, DE LA SALLE LAGUNA

Organized by the Computing Society of the Philippines to enable local and neighboring computing educators, researchers, information and communications technology (ICT) professionals, and students to interact and share their work in computing, computer science, computational science, and ICT.

### **Base Build Calabarzon** — *Certificate of Participation Holder*

SEPTEMBER 10, 2025, NATIONAL UNIVERSITY - LIPA

A seminar for blockchain development, within a day of hands-on, learning, collaboration and on chain creation.

## CERTIFICATIONS

IC3 DIGITAL LITERACY GLOBAL STANDARD SIX - CERTIPORT

MACHINE LEARNING w/ PYTHON