

# GEROME ANDREW DUCDUC

SOFTWARE DEVELOPER | MACHINE LEARNING, DATA SCIENCE & AI

## CONTACT

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 San Jose del Monty City, Bulacan

## SKILLS

Machine Learning Model Development

Neural Networks and Deep Learning

Computer Vision

Natural Language Processing

Generative AI (Text Generation, Image Generation, Neural Style Transfer, LLMs)

API Development

Database Management (SQL Server)

Backend Development (ASP.NET Core, Django REST Framework, Flask, FastAPI)

Frontend Development (React.js, Flutter, Streamlit, HTML, CSS, Tailwind, Bootstrap)

Python

JavaScript

C#

SQL, Transact-SQL (T-SQL)

Git, GitHub, GitLab, Azure DevOps

## EDUCATION

**Bachelor of Science in Computer Engineering**

**Polytechnic University of the Philippines**

2019 - 2023

## ABOUT ME

A passionate software developer with a deep passion in machine learning, data science, and artificial intelligence. Equipped with a solid background in computer engineering, I've honed my skills in both front end and backend development roles, bolstered by numerous certifications and projects focused on machine learning, data science, and AI. Proficient in backend development, database management, and API programming, I thrive on leveraging data science techniques to derive actionable insights through statistical analysis and predictive modeling. My proficiency in artificial intelligence enables me to develop innovative solutions for real-world challenges, consistently delivering impactful and efficient systems.

## WORK EXPERIENCE

### Web and API Developer

Radenta Technologies Inc.

December 2023 - Present

- Worked as both Front End and Backend Developer for a Payroll system, contributing to the development of intuitive user interfaces using C# Razor, JavaScript, and jQuery, while ensuring robust APIs, database management and system performance with Microsoft SQL Server and ASP.NET Core.
- Engaged in both Front End and Backend development roles for the Human Resource Information System (HRIS), employing C# Razor Pages, Bootstrap, JavaScript, and jQuery for frontend functionalities and Microsoft SQL Server and ASP.NET Core for backend tasks, ensuring seamless integration and optimal system performance.
- Contributed to backend development for the Flight On-Time Performance (OTP) System by creating SQL Stored Procedures and database design, while implementing frontend functionalities using C# Razor Pages.
- Spearheaded the creation of a Retrieval-Augmented Generation (RAG) Chatbot, leveraging open source LLMs, LangChain, FastAPI, and ReactJS technologies.
- Effectively communicated project progress and software capabilities through presentations to the company's core group.

### Web Developer Intern

Achieve Without Borders Inc.

2022

- Enhanced e-commerce web application functionality by creating innovative features using the Flutter Framework.
- Demonstrated problem-solving skills by actively identifying and resolving bugs within the application.
- Conducted rigorous unit testing using Cypress.io to maintain high-quality standards in the application.
- Collaborated within a dynamic team that successfully implemented the Agile Scrum Framework, actively engaging in daily sprint meetings and sprint planning sessions to drive project efficiency and success.

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## INTERNATIONAL RESEARCH PRESENTATION

### Real-time Littering Surveillance System using Integrated YOLOv7 and LSTM for Spatiotemporal Action Recognition and Object Detection

27th International Computer Science and  
Engineering Conference (ICSEC 2023)

Koh Samui, Surat Thani, Thailand

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## PROJECTS

Retrieval Augmented-Generation Chatbot  
using LangChain, HuggingFace  
Transformers, and React.js

Real-time Littering Surveillance System  
using Integrated YOLOv7 and LSTM for  
Spatiotemporal Action Recognition

HAILS - Hand Sign Artificial Intelligence  
Learning System

Stellar Entity Classification using Random  
Forest Algorithm

Sentiment Analysis using Bidirectional  
Encoder Representations from  
Transformers (BERT)

Predicting Heart Health with Ensemble  
Models

House Prices Prediction using Advanced  
Regression Techniques

University Admission Prediction using  
Extreme Gradient Boosted Trees  
Algorithm

## CERTIFICATES

[IBM Data Science Professional Certificate](#) - IBM Skills Network (coursera.org)

[TensorFlow Developer Professional Certificate](#) - DeepLearning.AI (coursera.org, 2023)

[Machine Learning with Python](#) - IBM Skills Network (coursera.org, 2023)

[Supervised Machine Learning: Regression and Classification](#) - Stanford Online (coursera.org, 2023)

[Convolutional Neural Networks in TensorFlow](#) - DeepLearning.AI (coursera.org, 2023)

[Natural Language Processing in TensorFlow](#) - DeepLearning.AI (coursera.org, 2023)

[Sequences, Time Series, and Prediction](#) - DeepLearning.AI (coursera.org, 2023)

[Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning](#) - DeepLearning.AI (coursera.org, 2023)

[Data Analysis with Python](#) - IBM Skills Network (coursera.org, 2023)

[Data Visualization with Python](#) - IBM Skills Network (coursera.org, 2023)

[Tweet Emotion Recognition with TensorFlow](#) (coursera.org, 2023)

[Databases and SQL for Data Science](#) - IBM Skills Network (coursera.org, 2023)

[Python for Data Science and AI](#) - IBM Skills Network (coursera.org, 2023)

[Applied Data Science Capstone](#) - IBM Skills Network (coursera.org, 2023)

[Python Project for Data Science](#) - IBM Skills Network (coursera.org, 2023)

[Scikit-Learn to Solve Regression Machine Learning Problems](#) (coursera.org, 2023)

[Build a Machine Learning Web App with Streamlit and Python](#) (coursera.org, 2023)

[Intro to Machine Learning](#) (kaggle.com, 2023)

[Feature Engineering](#) (kaggle.com, 2023)

[Intermediate Machine Learning](#) (kaggle.com, 2023)

[Introduction to Backend Development](#) - Meta (coursera.org, 2023)

[National Certificate II in Computer Systems Servicing](#) (TESDA, 2019)

[Building Web APIs with ASP.NET Core in .NET](#) (LinkedIn Learning, 2023)

[Advanced Web APIs with ASP.NET Core in .NET 6](#) (LinkedIn Learning, 2023)

[Relational Databases Essential Training](#) (LinkedIn Learning, 2023)

[Database Foundations: Intro to Databases](#) (LinkedIn Learning, 2023)

[Database Foundations: Data Structures](#) (LinkedIn Learning, 2023)

[Database Foundations: Database Management](#) (LinkedIn Learning, 2023)

[Database Foundations: Administration](#) (LinkedIn Learning, 2023)

[Database Foundations: Application Development](#) (LinkedIn Learning, 2023)

[Learning Microsoft SQL Server 2022](#) (LinkedIn Learning, 2023)

[Become a Database Administrator](#) (LinkedIn Learning, 2023)

[.NET Fundamentals: Concepts, APIs, and Libraries in the .NET Framework](#) (LinkedIn Learning, 2023)