# Matthew Gallardo

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## Education

# **Polytechnic University of the Philippines**

Manila, Philippines

2020 - 2024

Bachelor of Science in Computer Science

- Consistent President Lister
- CHED and Quezon City Youth Development Scholar

## Experience

## **Software Engineering Intern**

Aug. - Sept. 2023

Pasig, Metro Manila

**BAYTECH BPO CORPORATION** 

- Collaborated on optimizing the frontend, focusing on user experience and performance.
- Developed unit and automation tests with Jest and Playwright for improved project efficiency and reliability.
- Implemented Docker for efficient containerization, enhancing deployment processes.

# **Projects**

#### SOFTWARE DEVELOPMENT:

Cast Type | React, Node.js, MongoDB, Express.js, Styled Components, Redux

- Developed a full-stack web application for mechanical keyboards using React, Express (Node.js), and MongoDB.
- Utilized Styled Components for enhanced UI design.
- Implemented state management with Redux for optimal performance.

### Open-Source Freedom Wall | React, Node.js, MongoDB, Express.js, Context API

- Developed a MERN Full stack Freedom Wall website for CS students.
- Implemented React Hooks and Context API for efficient state management and optimized user experience.

#### EasyPC DBMS | Java Swing, MySQL, Database Management System

- · Developed a Java-based Inventory and Point of Sale (PoS) system for EasyPC.
- Implemented a Java Swing GUI for seamless user interaction.
- Utilized MySQL for backend database management, enabling efficient inventory tracking, product management, and sales processing.

#### **MACHINE LEARNING:**

Illuscan | GAN Models, Local Binary Pattern, Discrete Wavelet Transform, Support Vector Machine

- Undergraduate thesis about GAN-generated Image (Al Image) detection using novel spatial-frequency domain fusion approach.
- Developed a method combining Discrete Wavelet Transform (DWT) in the frequency domain with Local Binary Pattern (LBP) in the spatial domain.
- Employed Support Vector Machine (SVM) as a classifier.

#### CAMANAVA Regression | Multiple-Linear Regression Model, Prediction and Forecast Model, Tkinter

- Machine Learning model that predicts and forecasts temperature in Caloocan, Malabon, Navotas, and Valenzuela using Multiple-Linear Regression.
- Trained with atmospheric pressure, humidity, cloudiness, weather condition, and wind speed as predictors.

#### Technical Skills

Languages: JavaScript, Python, Java, C

Frameworks/ Libraries: React., Vue, Express., Node.js, Jest., HTML5, CSS3, pandas, NumPy, Matplotlib

Database: MySQL, MongoDB

**Developer Tools**: Git, Postman, VsCode, Google Collab, Jupyter Notebook, Android Studio, Docker, Playwright **Certifications**: DICT-ICT018-Basic Level of Software Engineering, DICT-ICT013-Intermediate Level of Software Engineering, DICT-ICT017-Advanced Level of Software Engineering