

Christian Jay Cuevas

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EDUCATION

Technological Institute of the Philippines - Quezon City

B.S. in Computer Engineering

September 2025

President's Lister

Relevant Coursework:

- Web Development, Mobile Development, Agile Frameworks, Software Design, Internet of Things
- Project Design, Engineering Data Analysis, Machine and Deep Learning

PROJECTS

Design Of Stray Detection For Smart Barangay Animal Control System Using Deep

Learning - *Web App, Mobile App* (straysafe.me)

- Developed a real-time stray animal detection system using deep learning models (YOLOv8, RT-DETR) integrated with CCTV feeds to address public health and safety challenges caused by 12 million stray animals in the Philippines.
- Delivered a web app for barangay officials and a mobile app for animal registration and notifications, enabling efficient stray animal management with features like detection, mapping, and alerts.

HeartBand - *Embedded Systems, IoT*

- Proposed an automated CPR device utilizing robotics to deliver consistent chest compressions, addressing limitations of manual methods such as fatigue and variability.
- Designed a secure, strap-based pumping mechanism for precise, uninterrupted operation, ensuring high-quality resuscitation with remote activation for improved efficiency and reliability.

RetinaAI: Classification of Diabetic Retinopathy Using Digital Signal Processing Techniques and Convolutional Neural Networks - *Web App* (retinaai.streamlit.app)

- Developed an automated diabetic retinopathy detection system by integrating Digital Signal Processing (DSP) techniques with Convolutional Neural Networks (CNNs) to enhance diagnostic accuracy and efficiency.
- Achieved a significant performance improvement, increasing validation accuracy from 54.46% to 92.75% by employing preprocessing methods like CLAHE and Gaussian blur, demonstrating the system's potential for scalable, early detection in resource-limited settings.

Design of a Remote-Controlled Vehicle Using Computer Vision for Finger Combinations

- *Embedded System, IoT*

- Developed an intuitive RC car control system using computer vision and MediaPipe for hand gesture recognition, enabling users to control the car's movement in four directions through mapped finger landmarks.

WORK EXPERIENCE

Freelance Web Developer

Remote Work

May 2024 - October 2024

- Worked as a freelance full-stack developer to create a web application using Laravel, Vue 3, Inertia, and MySQL for online mental health diagnosis.
- Designed and implemented a creative canvas feature allowing users to draw and color as part of the assessment process.
- Utilized Agile framework and sprints to manage development tasks, ensuring timely and iterative delivery of project milestones.

TECHNICAL SKILLS

Programming Languages

- Python - HTML/CSS
- Laravel - Javascript
- Vue 3

Skills

- Web Development
- Data Preprocessing
- Machine and Deep Learning

SEMINARS

GitOps: Early Steps with Infrastructure as Code Registration

Technological Institute of the Philippines Quezon City - Q-5204 Lecture Room

September 07, 2024

Essential Elements of Robotics: Functions, Design, and Innovation

Technological Institute of the Philippines Quezon City - Audio Visual Room

September 14, 2024

Simplifying Project Management: Agile's Role in Reducing Chaos

Technological Institute of the Philippines Quezon City - Audio Visual Room

September 28, 2024

Enterprise Resource Planning (Oracle NetSuite)

Technological Institute of the Philippines Quezon City - Audio Visual Room

September 28, 2024

Exploring the Current Trends in AI and Machine Learning (Workshop)

Technological Institute of the Philippines Quezon City - Q-5424/Q5426 (Technocore)

October 4, 2024

Introduction to Azure AI

Technological Institute of the Philippines Quezon City - Q-5424/Q5426 (Technocore)
October 4, 2024

Building and Deploying AI-Powered Applications (Workshop)

Technological Institute of the Philippines Quezon City - Q-5211 (Technocore)
October 5, 2024

Game Development in the Time of AI

Technological Institute of the Philippines Quezon City - Q-5211 (Technocore)
October 5, 2024

Plan, Build, Operate the Frameworks of Industry

Technological Institute of the Philippines Quezon City - Audio Visual Room
October 12, 2024