

# Renz Carlo T. Caritativo

Antipolo City, Rizal, Philippines | (+63) 9958412504 | caritativorenz@gmail.com

A highly motivated and results-driven professional with a passion for continuous learning and skill development.

## EDUCATION

### Polytechnic University of the Philippines

*Bachelor of Science in Computer Science*

Manila, Philippines

October 2021 - August 2025

- **Relevant Coursework:** Software Development / Web Development / Project Management

### Polytechnic University of the Philippines

*Science, Technology, Engineering, and Mathematics*

Manila, Philippines

June 2019 - August 2021

- **Relevant Coursework:** Software Development / Web Development

## SCHOLARSHIP

### Department of Science and Technology – Science Education Institute

*RA 7687 Scholarship Program*

Manila, Philippines

October 2023 - Present

- Currently a beneficiary of the Department of Science and Technology RA7687 Scholarship Program established by Republic Act No. 2067.

## THESIS

### Modified Permutation Approach using Logistic Maps Integrated

### Fisher-Yates Shuffling Algorithm in Video Encryption and Decryption

*CS Thesis Writing 1 and 2, Academic Requirement*

Manila, Philippines

October 2023 - Present

- Developed the frontend interface using ReactJS and API integration using FastAPI in Python. Also, conducted manual QA testing for a comparative analysis platform evaluating video encryption algorithms. Oversaw project management to ensure timely delivery and accuracy of results across all encryption quality, decryption quality, and processing metrics.

## EXPERIENCE AND LEADERSHIP

### Springboard Labs

*Backend Web Development Intern*

Manila, Philippines

February 2025 – April 2025

- Built scalable backend solutions using Laravel, optimized APIs, and implemented test automation to ensure robust and reliable applications.

### Haktiv Colab Inc.

*Web Development Intern*

Manila, Philippines

August 2024 – September 2024

- Contributed to building and enhancing e-commerce web applications, gaining hands-on experience in front-end and full-stack development using ReactJS, Restful APIs, and Python.

### Arduino Day Philippines 2025

*Head for Partnerships*

Manila, Philippines

October 2025 – March 2025

- Headed partnership efforts for Arduino Day Philippines 2025, fostering collaborations with tech and academic organizations to support the nationwide maker celebration.

### AWS Cloud Clubs – PUP

*Frontend Lead, Skill Builder Department*

Manila, Philippines

October 2024 – Present

- Creates comprehensive learning modules, initiate workshops, and mentor team members to enhance their frontend development skills and foster continuous growth.

## **Google Developers Student Clubs – PUP**

*Chief Partnerships Relations Officer*

**Manila, Philippines**

October 2024 – Present

- Responsible for building, nurturing, and managing strategic relationships with industry partners, academic institutions, and external stakeholders to foster collaboration and drive mutual growth.

## **Python Philippines**

**Manila, Philippines**

*Sponsorship Committee Volunteer, PyCon APAC 2025*

November 2024 - Present

- Assist in securing and managing sponsorships by fostering relationships with potential sponsors, ensuring alignment with event goals, and facilitating effective communication and collaboration.

## **PUP The Programmers' Guild**

**Manila, Philippines**

*Vice President for External Affairs*

November 2023 – September 2024

- Led efforts to build and maintain relationships with external stakeholders, including industry partners and academic institutions, to foster collaborations and promote organizational growth.

## **PROJECTS**

---

### **CitySync**

*NextJS, Tailwind, Firebase, Supabase, Google Maps API*

January 2025

- This is an overnight hackathon project where I led project management, research, and conducted quality assurance through manual testing for CitiSync, a platform empowering citizen to report issues, collaborate on solutions, and foster community engagement for a safer and more inclusive society.

### **Dorm**

*React, Typescript, Telegram UI, TON Connect, @telegram-apps SDK, Vite*

November 2024

- A Web3-powered gamified learning platform that integrates blockchain technology to reward students and educators. Designed and led the implementation of XP-to-crypto conversion, enabling students to earn incentives while learning and teachers to monetize their content. Spearheaded product strategy, market positioning, and growth roadmap to scale DORM to a global audience.

### **Linang**

*Python Flask, React-Native Expo, ChatGPT OpenAI API, Firebase Authentication*

July 2024

- Linang is a hackathon project and is an innovative educational companion that supports students, professionals, and lifelong learners with text recognition, auto-generated problem sets, and progress tracking to enhance their learning experience.

### **EasyPC: Smart PC Build Recommender**

*Python, React JS, Typescript*

June 2024

- EasyPC is a fuzzy inference web app that intelligently suggests optimal PC builds based on user needs and budget. By analyzing preferences and price constraints, it provides personalized recommendations for an ideal computing setup.

### **LoomScript: A Productivity Programming Language**

*Python*

December 2023

- Designed and implemented lexical and syntactic elements using Finite State Machines and built parse trees to enhance the language's ability to generate text-based diagrams and customized programs.

### **MEXT Scholarship Application Portal**

*React, Django, PostgreSQL*

July 2023

- This project, completed as the final requirement for the course Information Management where I created the UI/UX, developed the frontend and coded database queries.

### **Python Crowd Simulator**

*Python, PyGame, numpy, matplotlib, math*

February 2023

- The Python Crowd Simulator models realistic agent-based movement using the A\* algorithm for pathfinding and the Social Force Model for natural crowd behavior. With fast collision detection, precomputed Dijkstra maps, and heatmap visualization, it's a powerful tool for urban planning, game AI, and evacuation studies.