

Ayen Unice M. Manguan

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Education

University of the Philippines Diliman Sept 2021 - July 2025
Bachelor of Science in Computer Science Quezon City

- Summa Cum Laude Standing (*Current GWA: 1.07*)
- DOST-SEI Undergraduate Merit Scholarship

Philippine Science High School - Central Luzon Campus July 2015 – May 2021
Graduated with Highest Honors Clark Freeport Zone

- Academic Proficiency in Computer Science
- Academic Proficiency in Arts, Drafting, and Technology

Work Experience

The UP Parser Sept 2023 – Present
Creatives Head of the UPD Department of Computer Science's publication Quezon City

- Revived the organization by leading its creatives team after its inactivity during the pandemic
- Designed publicity materials that accompany the publication's written articles

Bahaghari - Pisay Gitnang Luzon Aug 2018 – May 2021
Associate Editor-in-Chief of the Official Filipino School Publication of PSHS-CLC Clark Freeport Zone

- Contributed to the layout of two issues of Bahaghari and a magazine for school promotions
- Managed a team of creatives in shifting to the online medium from the traditional medium of school papers
- Placed 6th in the National Schools Press Conference 2020 - Collaborative Desktop Publishing (Filipino)

Research Experience

LAMOC: Low-cost Acoustic Mosquito Observation Channel Sept 2019 – May 2021
Award-winning high school research for automated mosquito monitoring Clark Freeport Zone

- Developed a deployable mosquito monitoring device using Raspberry Pi and 3D-printed enclosures
- Implemented species identification (*Culex*, *Anopheles*, *Aedes aegypti*) using machine learning (SVM)
- Designed a web app that remotely displays the obtained data from the Raspberry Pi using HTML, CSS, Python, MySQL, and PHP
- Awarded *1st Place (Engineering)* at INSPO Turkey 2021 & *Applied Sciences Champion* in the UP Alchemes Research Fair 2021

Projects

AIMS: Automated Inventory Management System *NextJS, Typescript, Tailwind CSS, Supabase*
Dynamic inventory system for small-scale sari-sari stores

- Developed a web-responsive app for inventory management, including expiring stocks and top sales

ext2 Filesystem Reader *C*
File system reader for files formatted in ext2 written from scratch using C

- Demonstrated a deep understanding of file system structure and low-level programming
- Implemented file parsing, directory navigation, and data extraction functionalities with ext2-formatted files

Skills

Programming Languages: Python, C, Typescript, HTML5, CSS3, SQL, Bash

Frameworks: NextJS, ReactJS, Node.js, Tailwind CSS

Developer Tools: Git, PostgreSQL, MySQL, Windows Subsystem for Linux (WSL), Playwright

Miscellaneous: Adobe Creative Suite (Photoshop, Illustrator, InDesign, Premiere), Google Workspace (Docs, Sheets, Slides), Figma, Canva, Notion