

Alyanna Cabrera

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Education

De La Salle University BS in Computer Science Major in Software Technology. • Magna Cum Laude (CGPA: 3.736/4.000)	Manila, Philippines June 2021 - August 2025
De La Salle University - Integrated School Senior High School, Science, Technology, Engineering, and Mathematics (STEM) • Outstanding Paper Presentation • Consistent Recipient of the Academic Excellence Award • General Excellence Award - Silver Medallion	Manila, Philippines 2019 - 2021

Experience

Private Retail Client Software Developer (Contract) • Built a locally hosted inventory system using Node.js and EJS based on on-site workflow audits. • Designed a reusable CSS component library to ensure UI consistency and reduce future development time. • Leveraged jsPDF to automate invoice generation with precise alignment for legacy printer stationery. • Optimized UX via responsive EJS templates and migrated legacy data to a modernized database. • Led User Acceptance Testing (UAT) and iterative feature refinements to align with business needs.	Manila, Philippines August 2024 – December 2025
Abenson Ventures, Inc. System Development Intern • Developed high-fidelity frontend prototypes using EJS and JS to accelerate stakeholder approval. • Engineered a reusable component library with Vanilla CSS , ensuring system-wide design consistency. • Optimized web responsiveness via modern CSS techniques for seamless cross-device functionality. • Conducted competitive benchmarking to identify and integrate high-impact features into the system. • Standardized QA processes by implementing a code review framework to boost development efficiency.	Manila, Philippines May 2024 – July 2024
Pearl S. Buck Foundation Philippines Inc. Full-Stack Developer • Translated business requirements into high-fidelity prototypes . • Developed a web-based Sponsor Record Management System for centralized sponsor data access. • Engineered a responsive layout to ensure platform accessibility across all device types. • Collaborated in an Agile/Scrum team of 7, utilizing sprint cycles to ensure on-time delivery.	Manila, Philippines September 2023 – December 2023

Technical Projects

ArchBot: University Knowledge Graph & Chatbot Software Developer • Built an inquiry chatbot using Gemini 2.0 Flash to automate complex university processes. • Developed a web-scraping pipeline to transform unstructured newsletters into structured JSON. • Architected a Neo4j Knowledge Graph with 19 entity/relationship types to map academic data. • Implemented Advanced RAG with multi-hop reasoning to resolve multi-layered student queries. • Enhanced accuracy via multi-turn validation prompting , enabling LLM self-correction logic.	Manila, Philippines October 2024 – August 2025
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AnimoHub: Distributed Fault-Tolerant Enrollment System**Full-Stack Web Developer**

Manila, Philippines

September 2023 – December 2023

- Engineered a **distributed system** using **ASP.NET Core** across 4 nodes to eliminate single points of failure.
- Developed **3 isolated Microservices** (Auth, Course, Grade) each utilizing an independent **SQLite database**.
- Implemented **Service Isolation** ensuring the system remains operational during specific node outages.
- Integrated **cross-node API communication** and **JWT-based sessions** to maintain state across services.
- Designed a "**Fail-Fast**" detection logic to identify downtime and prevent cascading errors during enrollment.

Lasallian's Food to Pick**Full-Stack Web Developer**

Manila, Philippines

May 2023 – August 2023

- Deployed a **Node.js** discovery platform to streamline culinary searches within the DLSU area.
- Designed an **intuitive UI/UX** using **HTML/CSS** with **categorized search and filter** features.
- Built a **responsive interface** to ensure seamless **mobile accessibility** for students on the go.
- Managed a **MongoDB database** to store and retrieve structured restaurant and menu metadata.

Leadership & Activities**DLSU Dr. Andrew L. Tan Data Science Institute (ALTDSI)**

Manila, Philippines

Research Member

October 2024 – December 2024

- Published research in **Springer's LNNS series** for the **NLPIR 2025** conference (Scopus indexed).
- Studied **LLM and Knowledge Graph (KG)** synergy to reduce hallucinations in **QA systems**.
- Built an **end-to-end KGQA pipeline** involving KG construction and automated data collection.
- Curated a specialized dataset via **stratified random sampling** of official university communications.
- Achieved **93.14% accuracy** in node generation during **information extraction** and **graph creation** phase.
- Validated system with 567 facts, yielding a **93.52% F1 score** and a **94.86% Recall rate**.

DLSU - Microsoft Student Community (DLSU - MSC)

Manila, Philippines

Executive of External Relations

December 2021 – September 2024

- Cultivated a **strategic network** of AI researchers and tech leads for Generative AI sessions.
- Built an **expert database** through targeted research to secure speakers for **technical events**.

University Student Government - Office of the Vice President (USG - OVP)

Manila, Philippines

Executive of Finance

February 2023 – January 2024

- Managed **end-to-end financial administration** and budget tracking for **university projects**.
- Optimized **procurement and liquidation processes** in strict compliance with **auditing standards**.

Skills & Interests**Technical:** C, C++, C#, Java, Python, HTML, CSS, Tailwind, JavaScript, React, Node.js, Next.js, MongoDB, SQL, x86-64 Assembly**Language:** English (Fluent), Filipino (Native), Hokkien (Basic), Mandarin (Basic)**Tools:** Microsoft Office, Figma, Canva, Git**Interests:** Badminton, Swimming, Watching K-Dramas