JOHN CARLO P. JACOBE

Quezon City, Philippines | 09215820554 | jacobe.johncarlo.02022003@gmail.com | www.linkedin.com/in/jcj02
www.github.com/JCJ02

Education

Quezon City University **Aug. 2021 – July 2025**
Bachelor of Science in Information Technology *Course*
Quezon City, Philippines *Location*
Cum Laude *Latin Honor*

Technical Skills

Languages: HTML, CSS, JavaScript, TypeScript, Python, and C#
Frameworks/Libraries: ReactJS, NextJS, NodeJS (ExpressJS), FastAPI, ASP.NET Core Web API and Tailwind CSS
Databases: MySQL, PostgreSQL, MSSQL, and MongoDB
Developer Tools: Visual Studio Code, Postman, GitHub, Git, and Figma

Work Experience

Lightweight Solutions | Quezon City, Philippines **Sept. 2024 – Feb. 2025**
Full Stack Developer | Intern

- Trained in NodeJS (ExpressJS), TypeScript, Prisma ORM, and databases (PostgreSQL, MySQL, MSSQL, MongoDB).
- Built and maintained RESTful APIs with seamless database integration.
- Collaborated with Frontend Developers (Co-Interns) for smooth backend-frontend integration.
- Developed the LWS Invoice Web Application, automating invoice generation and management for internal processes.
- Developed basic CRUD APIs using Python (FastAPI) and PostgreSQL.
- Studying AI development to acquire expertise in creating AI-powered applications.

Projects

LWS Invoice Web Application **Nov. 2024 – Feb. 2025**
Full Stack Developer

- Developed the frontend using NextJS and React Query for API integration.
- Built APIs with NodeJS (ExpressJS), TypeScript, and PostgreSQL Database.
- Designed a system to manage clients and invoices, calculate the total outstanding amount of overdue and draft invoices, and automate invoice generation.

Capstone Research Project **Sept. 2024 – Mar. 2025**
POWERWALK: Converting foot traffic into sustainable energy, utilizing piezoelectric transducers with RFID and data visualization for efficient power generation
Software and Hardware Engineer

- Developed the POWERWALK web application, capable of monitoring the battery percentage, electricity generated from piezoelectric tiles, and consumed electricity of the POWERWALK charging station.
- Implemented the POWERWALK web application, featuring charts that display the daily usage of students who utilized the POWERWALK charging station, and an electricity meter chart that monitors daily electricity generated and consumed.
- Engineered an eco-friendly POWERWALK charging station hardware device that will help students of QCU to have easy access when in need of a charging station, in case of emergency and sudden draining of personal phones, without the restrictions of the school Policy.
- Created a hardware device that converts kinetic energy from foot traffic within the institution into mechanical energy using piezoelectric tiles.
- Developed the POWERWALK charging station utilizing Arduino and NodeMCU ESP8266 technology to authorize student charging via RFID card, enabling a seamless charging process with a simple tap of their official school ID.

Academic Awards

- **Best Research Paper – Hardware Category**
  Synergy 2025 University Research Conference
  Research Title: "POWERWALK: Converting Foot Traffic into Sustainable Energy Utilizing Piezoelectric Transducers with RFID and Data Visualization for Efficient Power Generation."
- **Best Capstone Project – B.S. in Information Technology**
  Recognition Day, Academic Year 2024-2025
  Project Title: "POWERWALK: Converting Foot Traffic into Sustainable Energy Utilizing Piezoelectric Transducers with RFID and Data Visualization for Efficient Power Generation."
- **Programmer of the Year**
  Recognition Day, Academic Year 2024-2025