# Justine Edward P. Santos

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# Summary

Full-stack developer with strong expertise in JavaScript frameworks and backend systems. Experienced in building responsive web applications with React/Next.js frontend and Laravel/Node.js backend solutions. Skilled in API development, responsive design, and creating intuitive user interfaces.

#### Experience

# Philippine Rice Research Institute (PhilRice)

Feb. 2025 - May. 2025

Information Technology Intern | Next.js, React, MongoDB, Laravel, MySQL

Muñoz, Nueva Ecija (Onsite)

- Developed a weather data visualization application that streamlines access to PAGASA's forecast data across 1,619 municipalities
- Optimized data handling of over 16,000 daily weather records (temperature, humidity, wind, rainfall) using MongoDB
- Built an interactive Philippines map with Leaflet is to visualize municipality-level weather information
- Implemented comprehensive historical data analysis tools with custom date range queries and export functionality
- Developed an admin page with configurable rule-based recommendation system for 10-day forecast data
- Automated data retrieval with cron jobs to synchronize with PAGASA's bi-weekly forecast updates

### Freelance Web Developer

Jan. 2024 – Feb. 2025

Next.js, React, MongoDB, Laravel, MySQL

Remote

- Developed a research repository web application for an educational institution using Next.js
- Implemented authentication systems and integrated PayMongo payment processing for client applications
- Created custom data visualization components and AI-powered analytics dashboards
- Translated client wireframes into fully responsive web solutions with cross-browser compatibility

#### Education

# Wesleyan University Philippines

Aug. 2021 - Present Cabanatuan, Nueva Ecija

Bachelor of Science in Information and Technology

• Dean's Lister (1st Year - Present)

#### Projects

Project E-SIP | Next.js, React, TypeScript, PostgreSQL, NextAuth, Git

- Developed a Google Scholar-like platform for 300+ STE schools featuring real-time collaborative document editing, highlighting, and commenting functionality
- Implemented secure school-based authentication with email verification and teacher approval workflow
- Created a monetization system through PayMongo integration enabling pay-per-view access to premium research papers
- Built comprehensive analytics dashboard with AI-powered insights and real-time messaging via Streamio

### School Management System | React, Laravel, Inertia, MySQL, Git

- Developed a comprehensive educational platform supporting 6 user roles (HR, Registrar, Treasurer, Program Head, Professor, Student) with tailored dashboards and permissions
- Implemented enrollment management, academic scheduling, grade calculation system with breakdown by quarter and assessment type
- Built integrated financial modules for tuition payment processing, payroll management, and miscellaneous fee tracking
- Created facility management features including classroom allocation, building assignment, and faculty/department organization

#### Survey App with Analytics | Next. js, React, TypeScript, MongoDB, Clerk, Git

- Designed and developed a survey platform that collected data from 100+ student respondents on social media usage patterns and academic performance correlations
- Created multiple question types with conditional logic and implemented secure user authentication using Clerk

• Built a comprehensive analytics dashboard featuring data visualization tools that revealed key insights, including the finding that high-performing students averaged 4+ hours of daily social media use

## Grading System Management | Angular, Express, Node.js, MongoDB

- Developed an educational platform supporting multiple senior high school strands (STEM, HUMSS, ABM, GAS, ICT) within a single institution
- Implemented a flexible grade calculation system allowing teachers to customize assessment methods and weighting criteria for different subjects
- Created role-based access for administrators, teachers, and students with tailored interfaces and permission levels
- Built responsive dashboards with data visualization tools to track academic performance trends across classes and strands

# TECHNICAL SKILLS

Frontend: React, Next.js, Angular, TypeScript, JavaScript, HTML, CSS, Tailwind CSS, Shaden UI

Backend: Laravel, Node.js, Express.js, Inertia Databases: PostgreSQL, MongoDB, MySQL

Authentication & Payment: NextAuth, Clerk, PayMongo Tools & Deployment: Git, Vercel, Leaflet.js, Streamio

Other: RESTful APIs, Responsive Design, Data Visualization, Cron Jobs