RONALD MASLOG

SOFTWARE ENGINEER • FULL-STACK DEVELOPER

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PROFESSIONAL PROFILE

Computer Science student and full-stack developer with hands-on experience designing and developing management systems, database-driven applications, academic platforms, and cloud-based solutions. Skilled across frontend, backend, databases, authentication, deployment, and system workflows, with a focus on building practical software that improves organization, monitoring, automation, and operational efficiency. Also experienced in applied AI, computer vision, embedded systems, mobile development, and blockchain application development using Solidity and Foundry.

EDUCATION

University of the Immaculate Conception (UIC) — Davao City, Philippines
Bachelor of Science in Computer Science, Major in Computational Health Informatics
College of Computer Studies | Expected Graduation: 2027

TECHNICAL SKILLS

- Languages: TypeScript, JavaScript, Python, SQL, Dart, C/C++, C#, Java, PHP, Solidity
- Frontend: React, Next.js, Vite, Tailwind CSS, shadcn/ui, HTML5, CSS3, responsive UI/UX
- Backend & APIs: Node.js, Express, Python, REST APIs, authentication, role-based access control
- Databases & Cloud: PostgreSQL, Supabase, MongoDB, MySQL, SQLite, Vercel, Render, AWS
- Software Engineering: system architecture, database design, CRUD systems, workflow design, testing, debugging, documentation
- AI / Computer Vision: TensorFlow, YOLOv8, computer vision, object detection, data analysis
- Blockchain: Solidity, Foundry, smart contracts, DApp development, testing and deployment workflows
- Other: Git/GitHub, Docker, Postman/Hoppscotch, Playwright, Vitest, Figma, Flutter, React Native, Unity, Arduino, Raspberry Pi

SELECTED SYSTEMS & PROJECTS

Cloud-Based OJT Monitoring & Journal System | *Next.js • React • TypeScript • Supabase • PostgreSQL*
Developed to centralize and streamline multi-school On-the-Job Training administration, replacing fragmented paperwork and manual monitoring. Built workflows for student profiles, company placements, journals, daily logs, attendance/DTR, supervisors, coordinators, and role-based access. The resulting system improves monitoring visibility, organizes student records, and provides a centralized digital workflow for OJT documentation and management.

WiCare — Wi-Fi CSI Monitoring System | *ESP32 • Wi-Fi CSI • Data Capture*
Developed as a non-contact sensing platform using Wi-Fi Channel State Information and ESP32 devices for physiological monitoring without wearable sensors. Implemented workflows for device connection, session configuration, calibration, raw CSI capture, storage, and time-based annotation. The system establishes a structured data pipeline for reliable collection and preparation of real-world CSI data for subsequent analysis and model development.

Torti — Life Calendar & Productivity Application | *Flutter • Mobile Development • Productivity*
Developed to help users visualize time, organize goals, and maintain consistent daily awareness through a life-calendar concept. Built features including life-calendar views, goal tracking, mindful reminders, widgets, notifications, and an AI assistant concept. The application turns long-term time and goal planning into a more accessible daily experience through a focused mobile interface.

EduScopeAI | *YOLOv8 • Computer Vision • Education*
Developed to support biology laboratory learning by assisting students with microorganism identification from microscope images. Implemented a YOLOv8-based computer-vision workflow for detection and classification with visual feedback. The system demonstrates how AI-assisted image analysis can make laboratory learning more interactive while reducing the effort required for manual identification.

IGNITES — Top-Down Action-Adventure Game | *Unity • C# • 2D Game Development*
Developed as an interactive top-down action-adventure game centered on village defense, real-time combat, and character progression. Implemented gameplay systems, player interaction, combat mechanics, and progression within a 2D Unity environment. The project demonstrates practical game-system development, object-oriented programming, interactive design, and the ability to translate gameplay requirements into working software.

Botanical Inventory System | *Web Application • Database System*
Developed to organize and digitize botanical inventory and plant-species documentation that can become difficult to maintain through scattered or manual records. Built a centralized database-driven workflow for recording, organizing, and retrieving plant information. The system improves accessibility and consistency of botanical records while providing a more efficient approach to managing structured inventory data.

GreenWise | *Flutter • Mobile Application • Sustainability*
Developed as a mobile application concept designed to promote environmental awareness through accessible digital information and user interaction. Built the application using Flutter with a focus on cross-platform usability and a simple, approachable interface. The project demonstrates mobile application development, responsive UI implementation, and the use of software to support awareness-oriented initiatives.

BLOCKCHAIN TRAINING & DEVELOPMENT

- Blockchain Trainer: Conducts hands-on training focused on building decentralized applications using Solidity and Foundry.
- Covers smart-contract development, project structure, local development workflows, testing, deployment concepts, and practical blockchain application implementation.

ADDITIONAL DEVELOPMENT EXPERIENCE

- Full-Stack Development: Builds database-driven systems and cloud applications using modern React/Next.js stacks with maintainable workflows and responsive interfaces.
- System Development: Translates operational requirements into modules, roles, database structures, forms, dashboards, reports, and automated workflows.
- AI & Automation: Integrates computer vision and data-driven features into practical applications.
- Embedded / IoT: Experience with ESP32, Arduino, Raspberry Pi, and Wi-Fi CSI data acquisition.
- Testing & Performance: Experience with application testing, debugging, and performance benchmarking using latency, throughput, speedup, and efficiency metrics.

PROFESSIONAL FOCUS

Full-Stack Development • Management Information Systems • Database Systems • Software Engineering • Cloud Applications • Blockchain Development • AI & Computer Vision • Mobile Development • IoT