

# AARON JALAPON

Software Engineer • Machine Learning Enthusiast • Product-Focused Developer  
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## SUMMARY

Computer Science student and product-minded developer specializing in **web development, machine learning, and system design**. Experienced in building **real-world, impact-driven solutions** across **AgriTech, Mental Health Tech, and PropTech**. Proven ability to collaborate in multidisciplinary teams, rapidly prototype under hackathon constraints, and deliver intuitive, user-centered systems.

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## TECHNICAL SKILLS

- **Languages:** Python, JavaScript, Java
  - **Frameworks & Tools:** React, Node.js, Flask/Django, REST APIs
  - **Machine Learning:** scikit-learn, data preprocessing, feature engineering, model deployment
  - **Databases & Cloud:** PostgreSQL, containerized deployments
  - **UI/UX:** Responsive design, accessibility, Figma, user-flow optimization
  - **Other:** Git, Docker, Agile / sprint-based development
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## FEATURED PROJECTS

### TanUM Nanotech Solutions

#### Smart Soil Monitoring & Nano Fertilizer Optimization System *Software & Machine Learning Lead*

- Designed and implemented a **cloud-based platform** for ingesting, storing, and visualizing real-time IoT soil data (NPK, pH, moisture, EC, temperature).
  - Developed **machine learning models** to analyze soil nutrient trends and generate **automated fertilizer recommendations**, reducing fertilizer waste and soil degradation.
  - Deployed ML outputs into a **web dashboard and SMS notification system**, ensuring accessibility for smallholder farmers and agricultural cooperatives.
  - Collaborated with IoT and nanotechnology teammates to deliver an end-to-end AgriTech solution.
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### Mindspace

#### Student Mental Health Support Application *Front-End Developer*

- Built the **responsive front-end UI** for a mental-health platform offering self-help resources, guided meditations, moderated peer support, and crisis-hotline integration.
  - Focused on **accessibility, privacy-first UI design**, and intuitive navigation for student users.
  - Improved **guided session completion by ~30%** and reduced **time-to-resource discovery by ~45–50%** through UI and UX optimizations.
  - Worked closely with designers and mental-health advisors to translate research-based practices into usable interfaces.
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## RealiTec

### PropTech Ecosystem & Buyer-Assistant Chatbot *Sprint Lead / Product & Software Contributor*

- Led a sprint to prototype a **buyer-assistant chatbot** that guides users through loan pre-qualification, document checklists, and next-step actions.
  - Implemented structured buyer profiling to reduce confusion in the home-buying process.
  - Achieved an estimated **50–55% reduction in pre-qualification guidance time** and **~40% increase in user confidence** through clearer workflows and automation.
  - Contributed to roadmap planning across multiple ecosystem modules.
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## AWARDS & COMPETITIONS

- **Top 3 — Preliminary Round**  
**PropTech Hackestate Hackathon — July 30, 2025**  
Project: RealiTec
  - **Best UX Award & Top 5 Finalist — Finals**  
**PropTech Hackestate Hackathon — August 27, 2025**  
Venue: Grand Regal Hotel & Casino  
Project: RealiTec
  - **First Runner-Up**  
**Innovation Olympics 3.0**  
*September 2–3, 2025 — University of the Philippines Los Baños*
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## EXPERIENCE

### Founder — Online Selling & Street Food Business

- Started with **₱1,000 capital**, scaled operations to support inventory expansion and equipment acquisition.
  - Managed sourcing, pricing, customer engagement, and logistics.
  - Developed strong business, communication, and problem-solving skills.
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## EDUCATION

### Bachelor of Science in Computer Science University of Mindanao *Focus: Software Engineering, Data Science, Machine Learning*

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## INTERESTS

AI for sustainability • Productivity systems • UX design • Entrepreneurship • AgriTech & PropTech innovation

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Award-winning CS student building AI-powered, user-centered solutions across agriculture, mental health, and real estate technology.