

# Patrick Ouano

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## EDUCATION

### University of Florida (UF) - Gainesville, FL

May 2028

*Bachelor of Science in Computer Science, Minor in Statistics*

*GPA: 3.79/4.0*

- **Related Coursework:** Data Structures and Algorithms, Operating Systems, Software Engineering, Computer Organization, AI Fundamentals, Computational Linear Algebra

## TECHNICAL SKILLS

**Programming Languages:** Python, C++, TypeScript, JavaScript, HTML5, CSS3

**Frameworks & Libraries:** React, Next.js, Tailwind CSS, Node.js, Discord.py, Vitest, React Testing Library, SFML

**AI & Automation:** n8n, OpenAI API (GPT-4o-mini), Pinecone, Retrieval-Augmented Generation (RAG), Gemini AI

**Design & User Experience:** Figma, UI/UX Design, Responsive Design, Wireframing, Prototyping

**Development & Tools:** Git, Vercel, Railway, DigitalOcean, REST APIs, GitHub Actions, Jira, Google Sheets API

## EXPERIENCE

### Software Engineering Intern

May 2026 – Present

*Housing Assembly (via EDU Africa)*

*Cape Town, South Africa*

- Orchestrate n8n-based RAG workflows integrating **GPT-4o-mini**, text-embedding-3-small, and **Pinecone** vector search to power an AI chatbot resolving housing-rights queries for 2,000+ community members.
- Lead a 4-person team as **Scrum Master** and core engineer while refactoring a legacy site builder into an HTML/CSS/JS site on Vercel with **GitHub Actions CI**, designing all systems for a non-technical handoff.

### Student Associate (AI Lab)

January 2026 – May 2026

*Raia AI*

*Gainesville, FL*

- Architected autonomous AI agents across 5+ client engagements using **n8n** workflows and custom **RESTful API integrations**, with **Jira**, automating complex business workflows to reduce operational overhead.
- Engineered **ETL pipelines** processing 1,000+ unstructured client data into Markdown, building optimized knowledge bases for **Retrieval-Augmented Generation (RAG)** and model fine-tuning.
- Led iterative **prompt engineering** and internal **QA testing** across 100+ simulated scenarios to validate agent reasoning, minimize hallucinations, and ensure high-fidelity performance.

## LEADERSHIP AND INVOLVEMENT

### Membership Outreach Chair

September 2025 – Present

*Japanese Student Association*

*Gainesville, FL*

- Grew membership **100%** within a single semester through targeted recruitment strategies and community-building socials, then built **Gamify JSA** (see Projects) to sustain engagement across a community of 200+ members.
- Directed the "Kyoudai" mentorship program by managing **50+** mentors and mentees and organizing key activities to foster supportive relationships between new and returning members.

## PROJECTS

### MealCraft (SwampHacks XI Winner) | *Next.js 16, TypeScript, Gemini AI*

January 2026

- Engineered a Minecraft-themed recipe generator using **Next.js 16** and **Tailwind CSS**, leveraging **Google Gemini 3 Flash** for multimodal image analysis to reduce food waste.
- Secured the "**Best Everyday Life & Wellbeing**" award by developing a responsive application that instantly converts user-uploaded fridge photos into detailed recipes with nutritional macros.
- Optimized application performance using serverless **Next.js API routes** and client-side image compression, ensuring low-latency interactions for a seamless deployment on **Vercel**.

### Gamify JSA | *Python, Discord.py, Google Sheets API*

December 2025 – Present

- Led the full development lifecycle as **Lead Developer & Scrum Master**, building a **Python** bot that gamifies club engagement for 200+ members through an automated XP, rank, and leaderboard system.
- Architected a real-time database integration using **Google Sheets API** and **gspread**, automating complex event attendance tracking and instant data synchronization for the officer team.
- Deployed a high-availability solution on a **DigitalOcean Droplet** using systemd, implementing automated cron jobs to manage daily quests, Wordle verification, and weekly challenges.