

James Barruga

Full-Stack & AI Engineer · AI Developer · AI Orchestrator · Founding Engineer, JoNeX

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I design, build, deploy, and run production systems end to end — full-stack web apps, AI agents, and the data pipelines behind them. I work from a real business problem to a shipped, tested, running product across four domains (hospitality, healthcare, fintech, commerce): full-stack builds with custom CMS and auth, AI/LLM features and voice agents wired into the tools a team already uses, automations that remove manual work, and data dashboards over a shared layer. I write clean, testable code and own the outcome — I verify my own work before it ships and keep it running in production.

CAPABILITIES

Foundations	OOP · data structures · unit testing · API design · coding style guides · security principles
Languages	TypeScript / JavaScript · Python · SQL
Frontend	React · Next.js · Tailwind CSS · responsive UI · component / design systems
Backend	Node.js · REST APIs & webhooks · serverless / edge functions · Supabase-class backends · auth & access control
Databases & Data	PostgreSQL · Firebase · BigQuery · MongoDB · MySQL · vector databases & embeddings · data modeling
AI / LLM Engineering	LLM APIs (Claude, GPT, Gemini) · RAG / internal assistants on company docs · prompt engineering & reusable prompt libraries · AI chat & voice agents (ElevenLabs) · agent & multi-step workflow orchestration
Automation	n8n · Make · Zapier · Telegram / Gmail bots · multi-step workflow design, troubleshooting & optimization
Data & Dashboards	multi-role operations dashboards · data visualization · Google Workspace engineering (Sheets / Docs via API — SUMIFS, NPER, live dashboards)
Integrations	CRMs · Twilio telephony · Messenger API · Notion · Airtable · Google Workspace · cloud storage · third-party REST APIs
Web Automation	Playwright / headless browser · data extraction · anti-bot handling · SPA scraping
DevOps & QA	Git · CI · Playwright test round-trips & build gates · deployment (Vercel · GitHub Pages · VPS)

EXPERIENCE

Founding Engineer — Forward Deployed Engineer, JoNeX	2026 – Present
- Principal hands-on builder of the agency’s client systems — from a client’s real problem to design, build, deploy, and iterate production software: full-stack web apps, AI agents, automations, and data dashboards. - Full-stack web applications in Next.js / React / TypeScript with custom CMS, auth, and integrations; backed by PostgreSQL / Firebase and third-party APIs. - AI / LLM features — chat and voice agents, and internal assistants trained on company documentation (RAG) — integrated via REST APIs and webhooks. - Own quality end to end: Playwright round-trips and build gates before anything ships; keep systems running in production.	

SELECTED WORK

CLIENT PRODUCTION SYSTEMS

- Hospitality client — website + no-code CMS + online ordering.** Full Next.js site with a custom no-code admin CMS (client edits every section) and a Messenger-based ordering flow. Designed, built, and shipped to production.
- US healthcare practice — operations automation.** Internal revenue-cycle / operations automation design to cut manual back-office work. (confidential)
- Custom budgeting & debt-payoff planner.** Dated-log inputs feeding a live dashboard (donut / bar / yearly charts) with an NPER debt-free-date projection and sinking funds. Google Sheets engineering via API.

AI SYSTEMS

AI voice receptionist. 24/7 inbound call handling, lead qualification, appointment booking, urgent-call escalation. ElevenLabs + n8n + Twilio. github.com/jamesbarruga/ai-voice-receptionist

AI product studio. Research + content studio for e-commerce: vision scraper, AI drafting, compliance checks. Next.js / TypeScript / OpenAI. github.com/jamesbarruga/ai-product-studio

AI documentary video pipeline. n8n orchestrator: news verification → script → visuals → assembled segment. github.com/jamesbarruga/ai-video-pipeline

AUTOMATION & DATA

Cold-email automation pipeline. Lead enrichment, AI personalization, manual-send approval gate. Python / n8n. github.com/jamesbarruga/cold-email-automation

Lead prospecting toolkit. Playwright + Python B2B toolkit: multi-source discovery, contact extraction, lead scoring. github.com/jamesbarruga/leadgen-prospecting-toolkit

Microfinance operations dashboard. Multi-role ops surfaces (exec, field officer, finance, admin) over one shared data layer. Next.js / TypeScript. github.com/jamesbarruga/microfinance-os-demo

Mobile commerce studio. Mobile-first e-commerce creative tool: AI-assisted listings, compliance, multi-channel export. Next.js / TypeScript.

HOW I WORK

- Own the outcome — from the business problem to deployed, working software, not just a ticket.
- Production-first: I test my own work before it ships and keep it running.
- Build to be read — clean, reusable, maintainable code, whatever the stack.