

# Michael McGlade

## AI Product Engineer | Deployment, Automation & Integration

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### Professional Summary

AI Product Engineer building applied AI and automation systems inside real business workflows. Led the AI transformation of Causeway, a brownfield education platform used by 7 medical schools internationally; delivers forward-deployed AI enablement inside client organisations for Elvante's Level 4 AI apprenticeship; and built Flow Local's CRM/prospect-intelligence automation for live outbound operations. Combines Python/FastAPI, RAG and document processing, LLM evaluation, CRM/API integrations, and 7 years of prior legal/fintech operations experience.

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### Selected Experience

#### Product Engineer (Contract) | Inish Educational Technology

*2023 - Present*

Built Causeway's AI generation layer across two deployment stages: live single-element generation used by paying institutional customers, and a larger document-to-course generation system currently running on the development server for testing.

- Worked backwards from a university sales/adoption bottleneck and built the AI layer to support a self-serve model: live single-element generation for paying institutions, plus a document-ingestion/course-generation pipeline that turns uploaded educator materials into structured interactive learning content
- Built Python scrapers for large-scale analysis of educator discussions across Reddit, Quora, and academic forums; findings shaped the self-serve positioning, upload-existing-materials workflow, and marketing-asset strategy
- Built Python/FastAPI AI service for document ingestion, extraction, chunking, embeddings, retrieval, and structured generation, using Pydantic models to keep outputs valid for the existing Causeway content model
- Implemented generation for multiple interactive element types, including MCQs, open questions, word match, and ordered lists, inserted into the existing Laravel/Summernote authoring workflow
- Evaluated OpenAI, Claude, and Gemini across quality, latency, cost, and workflow fit; selected OpenAI for the live single-element generation path used by paying institutions
- Added Logfire observability, cost/usage tracking, Stripe credit/subscription flows, and CRM lifecycle hooks around the AI generation experience
- Integrated the Python AI service into a brownfield Laravel platform used by 7 medical schools internationally, while preserving educator ownership of source materials

**Technologies:** Python, FastAPI, Pydantic, OpenAI, Claude, Gemini, Docling, embeddings, pgvector, Logfire, Docker, Laravel, PostgreSQL, Stripe, Summernote

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#### Implementation Tutor (Contract) | Elvante — Level 4 AI & Automation Apprenticeship

*2026 - Present*

Forward-deployed AI enablement inside client organisations: dropped in with minimal handover on ~2 hours a month per client, expected to discover the real workflow, set the data boundary, deploy AI usefully, and leave auditable evidence.

- Deployed AI working practices in two client organisations to date — a funded-learning compliance operation and a software agency — with two more onboarding
  - Designed GDPR-safe automation for sensitive learner-records workflows (scheduled tasks, email triage, regulatory-change monitoring) with no sensitive data touching public AI tools
  - Pivoted a session live from redacted prompt patterns to integrated agent tooling — AI coding agent connected to the learner’s IDE, GitHub, and real ticket queue — when that was the higher-value path for a developer
  - Converted a live governance risk into deliverable structure: supervised demo only, connection revoked afterwards, written employer-approval gate with specific questions before any real-system use
  - Produce assessor-ready evidence per engagement: session recaps, attendance records, reflection prompts, and a running delivery log
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## **Director | Flow Local AI**

*2024 - Present*

Built and operate AI-powered communication and CRM automation for local service businesses, including HighLevel/GHL configuration, n8n workflows, production infrastructure, and prospect-intelligence tooling for outbound campaigns.

- Built and operate a repeatable prospect-generation engine for Flow Local’s “Second Wind” offer, turning source-of-truth directories and company data into scored, CRM-ready outreach lists for high-ticket UK service verticals
- Developed vertical-specific ingestion workflows, including an MCS Selenium scraper for installer directories, while keeping enrichment, scoring, domain discovery, Notion review, and GHL import reusable across niches
- Integrated Companies House validation, Facebook/Google ad-signal enrichment, Brave-first domain discovery, Hunter email lookup for capped top-tier batches, and custom lead scoring
- Created a human-in-the-loop review process to catch weak domains, wrong emails, poor-fit businesses, and contextual signals the automated score misses
- Imported selected prospects into GHL as contacts and opportunities with tier/source/signal tags and custom fields, supporting live daily outbound activity and active reply volume
- Applied the same CRM/content automation pattern to Rest Reclaimed, configuring GHL workflows for media, social publishing, email templates, and campaign operations in a real brand context

**Technologies:** Python, Selenium, pandas, Pydantic, HighLevel/GHL, n8n, Notion API, Companies House API, Brave Search API, Hunter, Docker, Caddy, Supabase

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## **Legal Negotiator | FinTru**

*2017 - 2024*

Negotiated complex financial documentation for Tier 1 investment banks, working across legal, compliance, and trading stakeholders.

- Negotiated and managed ISDA Master Agreements, GMRAs, and related financial documentation under time pressure
  - Built domain expertise in regulated financial workflows, legal documentation, expert witness processes, and operational risk
  - Developed stakeholder-management and requirements-translation skills now applied to AI/product deployment work
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## Selected Public Projects

### Medical Bundle RAG

*Python, ChromaDB, Ollama, Docling, Flask*  
github.com/mikemcg87/local-ai-legal-package-assistant

Local RAG system for expert witnesses analysing medical-legal case bundles. Processes large PDF bundles with OCR, extracts clinical timelines, and enables semantic + keyword search with source citations.

- Hybrid retrieval combining embeddings with keyword search and cross-encoder re-ranking
- Timeline extraction with date normalization and event classification
- Local-first design for sensitive legal/medical documents

### PPL List Builder

*Python, Selenium, Pydantic, pandas*  
github.com/mikemcg87/ppl-list-builder

Configurable UK B2B prospect-intelligence pipeline for vertical outreach campaigns. Built around source-of-truth scraping, Companies House validation, paid-signal enrichment, lead scoring, and CRM-ready exports.

- Generalised from heat-pump installers into additional verticals using niche configs
- Includes MCS Selenium ingestion, tiering/scoring, Brave-first domain discovery, and GHL/Notion workflow integration
- Designed with provider-cost controls and human QA before outreach

### Archon Codebase Intelligence

*Python, FastAPI, AST, MCP, Supabase, React/TypeScript*  
github.com/mikemcg87/archon-codebase-intelligence

Extension for the open-source Archon MCP project management system, adding brownfield codebase analysis for AI coding assistants.

- Python AST parsing for entry point detection, code structure analysis, and tech-stack detection
- MCP tools and REST API for retrieving project analyses
- Supabase-backed storage for cached analysis history

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## Technical Skills

**Applied AI:** LLM APIs, RAG systems, embeddings, document ingestion, Docling, OCR, prompt design, structured generation, LLM evaluation, Logfire observability

**Backend:** Python, FastAPI, Flask, Pydantic, pandas, PostgreSQL, SQLite, SQLAlchemy, REST APIs, webhooks

**Integration:** HighLevel/GHL, n8n, Stripe, Notion API, Companies House API, Brave Search API, Hunter, WhatsApp Business API, Meta APIs

**Infrastructure:** Docker, Docker Compose, Caddy, VPS deployment, PostgreSQL, Supabase, Git/GitHub

**Frontend:** React, TypeScript, Tailwind CSS, Astro, basic Laravel/PHP integration work

**Working Style:** Brownfield integration, customer/workflow discovery, provider evaluation, human-in-the-loop automation, production cost discipline

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## Education

**BA English Literature** - Queen's University Belfast, 2010