

Isaac Bigsby Trogon

Senior Software Engineer - Enterprise Web Platforms & AI Applications

Drupal · PHP · Python · LLMs · RAG · React · Docker

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Drupal.org: <https://www.drupal.org/u/d0t15t>

Portfolio: <https://d0t15t.github.io/>

Profile

Senior Software Engineer with 15+ years building and maintaining production web platforms, with deep specialization in the Drupal and PHP ecosystem for enterprise clients.

Over the past several years I have focused on bringing Large Language Models, Retrieval-Augmented Generation, and vector search into those platforms - not as prototypes, but as maintained production features. I am the original author and maintainer of three officially released Drupal AI contrib modules, developed from real client requirements and deployed in production environments.

My work sits at the intersection that most teams struggle to staff: someone who understands enterprise CMS architecture well enough to extend it safely, and understands LLM and retrieval systems well enough to make them reliable.

Open Source - Drupal AI Ecosystem

Original Author & Maintainer - three officially released contrib modules on Drupal.org

AI Assistant UI - Framework components and user-interface functionality for AI assistant experiences within Drupal.

https://www.drupal.org/project/ai_assistant_ui

AI Chatlog - Recording, review, and analysis tooling for AI conversations.

https://www.drupal.org/project/ai_chatlog

AI Insights - Analytics and insights functionality for AI-powered Drupal applications.

https://www.drupal.org/project/ai_insights

Each module originated from a production requirement in LOOM client work and was generalized for community release. Together they represent sustained open-source maintenance, reusable component design, and developer-facing API work inside a large established ecosystem.

Selected Engineering Work

AI Assistant Platform - Drupal + Python Services

Designed and delivered a production AI assistant used across LOOM client projects, spanning both the Drupal application layer and a supporting Python service.

- Built the Drupal-side integration: module architecture, admin configuration, user-facing assistant interfaces, and content integration
- Developed a companion Python service (Flask, OpenAI API) for LLM orchestration
- Migrated the service to LangChain to decouple it from a single provider and allow future model swaps
- Implemented Retrieval-Augmented Generation using Qdrant as the vector store
- Designed the custom REST contract between the Python service and the Drupal application
- Handled production debugging, retrieval-quality tuning, and ongoing maintenance

Semantic Search & Retrieval

- Implemented semantic search backed by vector databases, working through embedding choice, indexing strategy, and retrieval quality
- Extended existing AI implementations to meet production requirements around reliability and performance
- Diagnosed and fixed complex retrieval behaviour where results were plausible but wrong
 - the failure mode that makes RAG systems hard to ship

AI-Assisted Development Workflow

AI tooling is part of my daily engineering practice rather than a side interest. Claude Code is my primary development environment for architecture exploration, implementation, refactoring, debugging, testing, and technical research. Previously worked extensively with GitHub Copilot and ChatGPT-based workflows across VS Code, PhpStorm, and terminal environments.

The emphasis is on effective developer–AI collaboration to raise code quality and velocity, not on AI-generated code.

Technical Skills

Backend & Platforms: PHP · Drupal (7/8/9/10) · Symfony · Flask · REST APIs · Webhooks · System integrations

AI / LLM Engineering: OpenAI API · LangChain · Retrieval-Augmented Generation · Embeddings · Vector databases · AI assistants and agents · Prompt engineering

Programming Languages: PHP · JavaScript / TypeScript · Python

Frontend: React · TypeScript · Gatsby · Component-based architectures

Databases: MySQL · PostgreSQL · Qdrant · Milvus

Infrastructure: Docker · Linux · Nginx · Git

Professional Experience

Senior Full-Stack Developer

LOOM GmbH - Berlin · November 2018 – Present

Development of complex web platforms and AI-enhanced software for enterprise customers.

- Delivered production platforms end to end: architecture, implementation, deployment, and long-term maintenance
- Built complex backend functionality in PHP, Symfony, and Drupal, including custom modules, workflows, and business logic
- Developed AI-powered functionality - assistants, semantic search, content automation - as maintained features of client platforms
- Built and integrated Python services with existing business platforms via custom REST APIs
- Created reusable open-source AI tooling now adopted across client projects
- Developed modern frontend components in React and TypeScript
- Worked in Docker-based development environments and modern engineering workflows
- Performed debugging, optimization, migrations, and technical modernization of legacy systems
- Contributed to technical decisions, architecture discussions, and code review

Web Developer

Michely Web Engineering - Berlin / Saarbrücken · 2016 – 2017

Drupal 7 and Drupal 8 applications for clients in pharmaceuticals, fashion, and specialized web industries.

Web Developer

Proventjobsfor.me AG - Berlin · 2014 – 2015

Backend development of a Drupal 8 recruitment platform: workflows, user management, and custom business logic.

Junior Web Developer

Clubspo11.de AG - Berlin · 2012 – 2014

Frontend and backend development of a Drupal-based sports marketing platform.

Digital Producer / Photo Editor

artnet AG - Berlin · 2007 – 2011

Digital publishing, content management, editorial workflows, and web project coordination.

Education

University of North Carolina at Chapel Hill · 1997 – 2002

Bachelor of Arts, with honors - Cultural Studies, German Studies

Languages

- English - Native
- German - Fluent