

# Dessi Georgieva

*Research Engineer — AI Systems & Human Agency*

London, UK · LinkedIn · GitHub · AI Knowledge Hub · AI News Hub

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## SUMMARY

Research Engineer building AI systems that empower human agency rather than extract attention. I design multi-agent architectures, Bayesian learning systems, and marketing intelligence platforms — grounded in a philosophical framework that treats intention as geometric structure and system design as an ethical practice. My work bridges production engineering, original research, and community building around empowerment-focused AI.

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## CORE SYSTEMS

### Intent Recognition Agent

*Performics Innovations Lab (Publicis Media) · Production*

Four-layer marketing intelligence system that models consumer intention through behavioral embeddings, clustering, and LLM-powered persona generation.

- Designed behavioral embedding architecture representing intent as continuous geometric structure
- Built unsupervised clustering pipeline discovering emergent intent categories from behavioral data
- Integrated LLM-powered persona generation grounded in cluster characteristics
- Connected intent intelligence layer to campaign strategy and audience targeting workflows

**Stack:** Python, behavioral embeddings, clustering algorithms, LLM integration

### Agentic Commerce Learning Loop

*Performics Innovations Lab (Publicis Media) · Production · 124+ commits*

Multi-tenant Bayesian learning system enabling marketing agents to learn from commerce signals with progressive belief updating.

- Architected progressive Bayesian updating mechanism for continuous learning from commerce outcomes
- Designed multi-tenant isolation ensuring complete data and model separation across clients
- Built closed feedback loops: agent actions → commerce outcomes → belief updates → improved decisions
- Deployed enterprise-grade system on AWS with production monitoring

**Stack:** Python, Bayesian inference, multi-tenant architecture, AWS, FastAPI

### AI Agent Skills Framework

*Open Source · ai-knowledge-hub · Active*

Open-source ecosystem helping marketing teams adopt AI agents through structured, progressive learning.

- Created 18 production-ready agent skills with consistent specification format
- Built cross-platform Go CLI tool for skill discovery, installation, and management
- Developed Next.js catalog website providing searchable skill interface
- Designed progressive educational architecture from fundamentals to advanced orchestration

**Stack:** Go, Next.js/React, Markdown, multi-runtime specifications

### AI News Hub — Content Platform

*200+ organic followers · 50+ articles · Active*

- Grew platform to 200+ organic followers in six months alongside full-time engineering
- Published research including "The Geometry of Intention" and "The Phenomenology of Search"
- Built engaged practitioner community around empowerment-focused AI perspectives

**Stack:** Astro

## DG-Labs OS — Portfolio as Operating System

Personal · Active

- Designed knowledge graph architecture (Sigma.js) with weighted nodes and idea edges
- Built terminal agent backed by structured knowledge base with provenance tracking
- Implemented dual-audience system serving both human visitors and LLM agents

**Stack:** Astro, React, TypeScript, Sigma.js, OpenRouter

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## EXPERIENCE

### Data Engineer (Research Engineer scope)

Performics Innovations Lab · Publicis Media · London, UK · Present

Designing and building AI systems from the ground up within a marketing intelligence context. Actual scope encompasses multi-agent architectures, Bayesian learning frameworks, behavioral modeling systems, and production deployment — significantly exceeding the traditional data engineering remit.

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## EDUCATION

### MA Human Rights

University of York · UK

Human rights theory and practice. How institutions and technical systems create or deny human agency.

### BA Philosophy (Philosophy of Science)

Sofia University · Bulgaria

Epistemology, logic, and the structure of scientific knowledge. How representational frameworks constrain what we can know.

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## RESEARCH & PUBLICATIONS

Deep Dive Analysis Series (AI News Hub):

- **The Geometry of Intention** — Intent has geometric structure that categorical taxonomies destroy. Proposes embedding-based models where intent patterns emerge from data.
  - **The Phenomenology of Search** — Applies phenomenological methods to search behavior, examining what query formulation reveals about human intention.
  - 50+ additional articles on AI, marketing intelligence, and human agency.
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## TECHNICAL SKILLS

**Languages:** Python, Go, TypeScript/JavaScript, R

**AI/ML:** Behavioral embeddings, clustering, Bayesian inference, LLM integration, multi-agent orchestration

**Frameworks:** FastAPI, Next.js, React, Astro, Sigma.js

**Infrastructure:** AWS (multi-tenant production), Vercel, Supabase, GitHub Actions

**Practices:** AI-assisted frontend development, research-grade system architecture, open-source ecosystem design

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*Core thesis: AI systems should empower human agency, not extract attention. This is a design constraint, not a tagline.*