

► Robin Hana

AI Software Engineer | Solution Architecture

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Profile

AI Software Engineer who builds LLM systems for production use, with hands-on solution architecture experience. At Gemeente Utrecht, ArchAssist is under construction: a containerised Retrieval-Augmented Generation (RAG) system that gives project architects traceable answers from architecture frameworks, legislation and internal standards. At Hijswinkel, n8n AI-agent workflows were designed and integrated with Odoo, guarded by RAGAS confidence scores and deterministic output monitors, with full ownership of the architecture, CI/CD and code standards of the in-house ERP.

Iterative by habit: prototypes first, modular code, strict conventions and no complexity a requirement does not ask for. Founder of a trading company since 2021, which connects technical design to business value and stakeholders.

Skills

AI and LLM engineering: Retrieval-Augmented Generation (RAG), LLM application development, AI agents and tool use, prompt engineering, document chunking, embeddings and vector search, LLM evaluation (RAGAS, deterministic output checks), human-in-the-loop design, Model Context Protocol (MCP), n8n agent workflows, transformer fundamentals, applied machine learning, LLMops, LLM gateway design (PII redaction, policy-based field filtering)

Programming: Python, C#, .NET Core, JavaScript, SQL, Django, Angular, Odoo 17, mobile app development (Android)

Data and platforms: PostgreSQL, MySQL, Elasticsearch, Docker, Microsoft cloud services, REST APIs and integrations

DevOps and quality: CI/CD (GitHub Actions), Git, TFS, unit and system testing, code reviews, development standards, deployment strategy

Architecture: Solution architecture, high-level and technical design, Project Start Architecture (PSA), GEMMA, Common Ground, architecture principles and standards, API design

Ways of working: Agile/Scrum, Jira, requirements management, stakeholder management, change management, documentation, entrepreneurship

Work experience

AI Software Engineer (graduation internship)

Gemeente Utrecht, Architecture, Utrecht | Sep 2026 – Jan 2027

- Design and build ArchAssist, a RAG system that answers architecture questions for project architects consistently, correctly and traceably, from GEMMA, Common Ground, Project Start Architectures, legislation (Wmebv, EU AI Act) and technical standards.
- Own the full system: requirements with architects and several departments, system design, data extraction and filtering, retrieval and generation, acceptance testing and applicable security standards.
- Built deployment-ready from the start: containerised with Docker on Microsoft services, so the municipality can take over and extend it.
- Test strategy on two levels: component tests for retrieval and generation, and system tests that match answers against source fragments.
- Apply structure-aware chunking and design MCP connectors for read-only public sources (GEMMA, NORA) and Bizzdesign models.

Full-stack Software Engineer & Solution Architect

Hijswinkel B.V., Veenendaal | Jul 2025 – Oct 2026

- Responsible for the design, development and architecture of the in-house ERP system on Odoo 17, from functional and technical design to implementation and production.
- Designed and integrated n8n AI-agent workflows with Odoo, together with the lead engineer: automated inbox segmentation and automated answers to customer questions such as order status.
- Made AI output reliable in production with a human review step, RAGAS confidence scores and deterministic monitors that check output against source data.
- Built custom Odoo modules in Python and JavaScript, including intercompany return synchronisation and a refactor of the product configurator.
- Set up CI/CD with GitHub Actions, defined development standards and deployment strategy, and guarded code quality.

Full-stack Software Engineer (internship)

DEVENTit B.V., Bunschoten | Feb 2025 – Jun 2025

- Modernised the collection management platform Atlantis, focusing on redesigning the multimedia subsystem for scalability, maintainability and performance.
- Refactored legacy back-end components and built secure, scalable APIs with C#/.NET Core, Angular, MySQL and Elasticsearch.
- Validated architecture choices with senior engineers and the architecture team; worked in Scrum (Jira, Git, TFS) with an offshore team in India.
- Offered a permanent contract as software engineer at the end of the internship.

Functional Application Manager / Support Specialist

Artsenfederatie KNMG, Utrecht | Nov 2023 – Nov 2024

- Translated user needs into system requirements and guided changes through a structured change management process.
- Coordinated testing and controlled implementation of changes; handled incident management.
- Wrote user documentation and procedures, and trained staff in using systems and processes.

Founder & Director

Nero Vintage Watches B.V., Amersfoort | Aug 2021 – present

- Built and run a company trading pre-owned and vintage luxury watches through a network of partners in the Netherlands.

Earlier experience

- Student Software Engineer, Dockler B.V. (Mar 2022 – Jul 2022): front-end and back-end use cases with Django, JavaScript, Bootstrap 5 and SCSS.
- IT Specialist, MediaMarkt Nederland (Jun 2019 – May 2021): hardware and software diagnostics, repairs and customer support.

Projects

Penweir (Web & App)

Sep 2026 – Nov 2026

Self-hosted AI gateway that lets company data flow to LLMs in a controlled way. Systems such as Odoo, mailboxes and databases connect through a dashboard, and per use case the user decides what may pass through: PII redaction, field filtering, model choice and policy. The gateway stores no data itself, only metadata for audit. Pipelines, connectors and model adapters are plugins behind a stable contract, and every setting is also available as versionable YAML config, so control of the data stays with the user, without vendor lock-in.

RGPT-LLM

github.com/RobinHana04/RGPT-LLM | Feb 2026 – Jul 2026 | personal project

A language model built from scratch, with an expected size of about 300M parameters (comparable to GPT-2). Applied machine learning and LLMops. Source code on GitHub.

Omroep ZOUT mobile app (iOS & Android)

Aug 2026 – Nov 2026

Mobile app for Omroep ZOUT, a regional broadcaster in the Utrecht region, designed and built with a fellow engineer. Android version from development to publication.

OLVA & St. Joseph website

Jan 2026 – present | Amersfoort

Software engineer and webmaster for the website of the St. Josephkerk in Hooglanderveen: web development and technical support.

Flash

May 2018 – Apr 2019 | founder and software engineer

Service-oriented app that gave users personalised information from databases through API integrations, built to be easy to use and efficient. More than 20,000 active users.

Education

Bachelor of Science, Software Engineering (HBO-ICT)

Hogeschool Utrecht | 2022 – 2027

Expected January 2027. Graduation project: ArchAssist, a RAG system for municipal architects at Gemeente Utrecht.

Minor Entrepreneurship

Hogeschool Utrecht | Feb 2026 – Jul 2026

HAVO, Nature & Health

Corlaer College | 2020 – 2022

Languages

Dutch (native) · English (full professional proficiency)