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John Doe

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## Overview

I learn by building.

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# Projects

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## Chain-AI — Python RAG Framework

Developed and published chain-ai, a Python-based Retrieval-Augmented Generation framework on PyPI, inspired by LangChain. Designed for building LLM applications with minimal boilerplate.

- GitHub: [github.com/johndoe/chain-ai](https://github.com/johndoe/chain-ai)
- PyPI: [pypi.org/project/chain-ai](https://pypi.org/project/chain-ai)

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## Location-Based Map Prototypes

Prototyped multiple map-based discovery tools:

- Go with H3 indexing
- .NET with PostGIS + Leaflet
- Vector tiles with MapLibre + Martin for high-performance rendering

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## GeoServices Platform

Created a geospatial full-stack application using .NET, NextJS, PostGIS, and NetTopologySuite with the geography type for accurate distance calculations.

- Managed GADM level 1–3 polygons for hierarchical mapping
- Implemented district-level zoom and shop point aggregation
- Used S2/H3 indexing for hybrid spatial mapping

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## AI Storybook Tool

University project converting text from PDF/EPUB into simple storybooks via LLMs.

- Used MuPDF for parsing and MinIO for file storage
- Paused due to OCR limitations

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## Identity Provider (OIDC – .NET)

Implemented authentication flows using Duende IdentityServer and OpenIddict.

- Integrated with NextAuth.js
- Managed tokens, scopes, and secure API communication
- Later developed as a reusable multi-tenant SSO package with PostgreSQL stores, Serilog logging, Discord alerts, and custom Razor Pages
- Included consent page and Discord alert integration

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## FastAPI TODO MCP

Built a FastAPI/React CRUD TODO API and Exposed it as a MCP for Local IIm.

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Education: B.Sc. in Computer Science