SVEN-ERIK NYBERG

Systems Builder · Researcher · Educator — Detroit, Michigan
sven.erik.g.nyberg@gmail.com · sven-eriknyberg.com · linkedin.com/in/sven-nyberg · github.com/sveneriknyberg

A physics-trained analyst who became an educator, an operator and a builder. Twenty years of work share one discipline: measure before you claim. Today that discipline runs a governed multi-agent research practice, a publishing house of one, and essays on who owns the systems a city runs on.

INDEPENDENT PRACTICE — STRANGE LOOPS (IN FORMATION), DETROIT

Founder — Systems Architecture, Research & Publishing 2025 – Present

- **The Loop & Governance Gateway.** Designed and operate the governance infrastructure for a multi-agent ecosystem — decision ledger, peer review, tiered authority — live in production with 50+ tools. AI peers collaborate and check each other's work; one human decides, and every decision is on the record.
- **The Press & Exocortex.** A publishing lane for sven-eriknyberg.com (Hugo → Cloudflare Pages; first essay live November 2026, mirrored to Substack) and an Oxigraph knowledge graph that agents query and commit to.
- **Shipped products.** Junction, a rail journey planner over a live API with operator-source verification; Curio, an antiques inventory and pricing ledger in live pilot; Trapline, a hiring-signal monitor — 25 of 25 daily runs, zero errors across Oct–Nov 2026; a cross-book odds framework unifying five data feeds with the mathematics kept in tested code; a privacy-first residential access & package portal replacing paper logbooks.
- **Research with the negative results left in.** A criticality study whose calibration failed honestly (0/60 points certifiable — published as the finding), and an amplituhedron audit that tested the programme's own draft claims, published where they failed, and shipped an exact verifier in their place.
- **Consulting.** Strategic Proxy — advocacy and coordination for individuals and families navigating complex situations; automation sessions for independent small business owners; career-services work.

EXPERIENCE

The Westin Book Cadillac (Marriott), Detroit — Guest Services Representative Jan 2023 – Dec 2024

- "Best of the Book" award, Q1 2024. Front-desk service for a landmark luxury hotel, including Air France crew clientele; streamlined mobile check-in; Marriott Lightspeed PMS.

The Princeton Review — Instructor · Premier Tutor · Master Trainer · Manager Oct 2007 – Dec 2017

- A decade of teaching ACT, SAT, Subject Tests, AP, GRE and MCAT across the sciences and mathematics. Master Trainer of new instructors (MCAT Physics, General Chemistry, GRE); Instructor of the Month, April 2013. Hiring & Instructor Manager for Michigan & Indiana (2016–17), then eLearning Instructor Recruiter (2017) — recruited and assessed hundreds of online instructor candidates.

University of Michigan, Physics Laboratory — Research Staff 2003 – 2007

- Designed, implemented and tested a prototype Frequency Scanned Interferometry metrology system for ILC tracker alignment — published in *Applied Optics*. LIGO data-analysis software development; maintained the laboratory's Linux network. Physics tutor for undergraduate courses, 2004–06.

Operations Roles, Metro Detroit 2020 – 2022

- Amazon DTW1 fulfillment associate (Romulus); Sam's Club Canton & Southgate — cashier, member specialist, personal shopper, forklift merchandiser; DoorDash contractor, 4.78-star rating.

EDUCATION & HONOURS

University of Michigan, LS&A Honors College — physics and mathematics coursework, 2002–2007, through 500/600-level courses including graduate-level study. Regents Merit Scholarship. Website Development & Publicity Chair, University Students Against Cancer, 2002–06.

SKILLS

TypeScript · Python · Cloudflare Workers / D1 · Hugo · MCP tool design · data pipelines · statistical validation · research & technical writing · instruction & trainer development · hospitality systems (Lightspeed PMS) · guest service & operations