

John-Hugh Hedrick

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CAREER SUMMARY

Principal Solutions Architect specializing in scalable enterprise ecosystems, ERP migrations, and production AI agent deployment. Proven track record of automating high-volume supply chains, restoring financial data integrity, and transforming business requirements into fault-tolerant software architectures.

WORK EXPERIENCE

Principal Solutions Architect, Hybrid | Simplified Computers

Mar 2024 – Current

- Orchestrated the end-to-end technical migration of all customer and employee-facing software systems during the company acquisition, minimizing service disruption and ensuring immediate business continuity.
- Spearheaded an automated SEO-driven ecommerce ecosystem to bridge critical ERP gaps, synchronizing the supply chain via real-time distributor APIs while optimizing Core Web Vitals by resolving N+1 queries and implementing caching strategies.
- Restored financial integrity by diagnosing and resolving a critical data gap, executing direct PSQL queries to retroactively correct inventory valuation accounts as the sole technical owner of accounting logic.
- Engineered a customer-facing product recommendation engine using agentic workflows and prompt engineering, offloading deterministic operations to custom search and structured-output tools while leveraging AI for contextual reasoning.
- Scaled catalog quality across 50K+ products by building a pipeline of backend AI agents for SEO generation, attribute relevancy scoring, ranked sorting, and auto-categorization, eliminating manual effort otherwise impossible at a startup.
- Increased personal code velocity 2.5x and PR throughput 4x by adopting AI-assisted development workflows (Claude Code), enabling faster implementation of complex architectural solutions.

Full-stack Developer, Remote | FarmAfield

Sep 2021 – Aug 2023

- Engineered and deployed scalable full-stack solutions, utilizing Test-Driven Development and CI/CD pipelines to ensure code quality across 30+ projects.
- Served as Technical Lead for the intern team, conducting code reviews and facilitating stand-ups to accelerate project delivery and enforce code quality standards.
- Optimized database performance by refactoring complex queries, reducing administrative dashboard latency by over 50%.

Software Development Intern, Remote | FarmAfield

May 2020 – Aug 2021

- Implemented a high-performance caching layer using Redis and event-based invalidation, reducing duplicate request latency to <1 second.
- Diagnosed and resolved critical concurrency issues (race conditions) in the financial transaction system, ensuring strict data consistency and recordkeeping.
- Fortified system stability by implementing automated Selenium testing, establishing a critical layer of prevention against production regressions.

EDUCATION

Bachelor of Science in Computer Science, University of Illinois Urbana-Champaign, 2021

TECHNICAL SKILLS

Architecture & Strategy: Solution Architecture, ERP Ecosystems, Business Process Automation, AI Agent Design, E-Commerce Strategy, Database Design, Performance Engineering (N+1, Caching), CI/CD, TDD

Languages & Frameworks: Python (Expert), SQL, JavaScript, Odoo (v18), Django, HTML5/CSS3, LLM APIs

Data & Infrastructure: PostgreSQL, Redis, Linux, Docker, Git, REST APIs

Testing & Quality: Selenium, Unit Testing, Automated Regression Testing, Root Cause Analysis