

Derick A. Gross

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SUMMARY

I am an AI engineer based in NY with experience building AI-powered solutions using RAG, and architecting distributed systems using cloud technologies.

EXPERIENCE

Senior Software Engineer, Annalect 8/2024 Present

Lead technical design and implementation for Omni Objects, a cross-platform inter-application messaging system enabling seamless data sharing between web apps, dashboards, AI agents, pipelines, and automated workflows.

- Led technical design and implementation for a high-impact, cross-functional initiative from concept through delivery
- Collaborated with CTO, Director of Engineering, and tech leads to define architecture and system requirements
- Drove integration strategy with engineering leaders across seven teams to replace legacy systems
- Partnered with product leadership to shape roadmap and gather functional and non-functional requirements
- Authored comprehensive design documents and migration plans for core features and legacy systems
- Defined workstreams, refined tickets, and performed ~90% of code reviews for four engineers
- Designed and implemented scalable database schema, services, and routing logic to support data interoperability at the scale of the world's largest ad agency

AI Engineer, dag.ai 11/2023-present

- As an entrepreneurial software engineer in AI, I integrate AI models with custom data sets using techniques such as RAG, interview technical experts for AI model improvement tasks, and mentor software engineers through cutting-edge projects and career development

AI Technical Coding Expert Interviewer, Scale AI 12/2023-8/2024

- Successfully evaluated and leveled hundreds of coders through technical and behavioral interviews to staff reinforcement learning through human feedback (RLHF) teams

Product Engineer, Ridgeline 8/2020-7/2023

- Integrated with external vendors to ingest updates to securities, market capitalizations, corporate actions, etc., providing required data feeds for 83% of new customers
- Collaborated cross-team with portfolio accounting on critical API and workflow enhancements that contributed to 1000x performance increase in V2 system
- Eliminated 25% of fixed costs for pipeline testing environments by identifying and removing environments where fixed cost exceeded variable cost with no impact on code velocity
- Implemented site reliability solutions using Datadog monitors integrated with Slack channels and messaging, improving response rate to failures from 3 hours to 7 minutes
- Built reusable relational subquery and query components to replace in-memory data processing, boosting performance ~9x

- Advocated for regular and formal technical design reviews to increase knowledge sharing, decrease re-work, and empower faster and more thoughtful code review
- Designed devops mentoring program to formalize knowledge sharing

Co-Creator and Software Engineer, Apex 1/2020-4/2020 apex-api-proxy.github.io/

- Designed solution architecture and created initial design drawings
- Designed middleware to manage fault-handling logic, such as retries, backoff and timeout
- Designed relational database table schema for log storage
- Wrote middleware logic for request/response log storage
- Built admin user interface (React) and API (Node/Express)
- Created Docker images and YAML file for deployment with Docker and Docker Compose)
- Integrated Node.js/Express.js solution with TimescaleDB, Redis, and React
- Wrote application docs, including instructions for deploying in AWS Elastic Container Service
- Co-authored comprehensive technical case study

Instructor Lead - Software Engineering, General Assembly 3/2019-6/2019

- Students I taught and advised have accepted roles at Amazon, Meta, Spotify, IBM, and more
- Instructed 30 students in full stack software development and software engineering fundamentals, including React, Javascript, Ruby and Ruby on Rails, SQL, object relational mappers, Node, Git, database design, API design, HTML, CSS. Had the distinction of teaching General Assembly's first ever Software Engineering Immersive, which included dedicated courses I designed for data structures and algorithms: linked lists, merge sort, etc.

Software Developer, True Earth Health Products 11/2016-3/2019

- Decreased mobile site payload from 10.6MB to 1.6MB, increasing mobile conversion rate increased by 21.9% and adding a projected \$700k in revenue over 5 months
- Built event-sourced workforce management app, increasing call center QA efficiency by 45%
- Designed and built cloud ETL solution for ingesting Excel spreadsheets, persisting reporting data in relational databases, replacing legacy integration with on-premises database
- Deployed automated vendor report delivery system, saving three development hours per week
- Migrated on-premises relational database to the cloud, decreasing costs by 65%
- Added custom cross sell and upsell pages to websites, increasing revenue per sale by 3.6%
- Interviewed, onboarded, managed and mentored new developers

Software Developer, Unytus 5/2016-10/2016

- Designed and built MVP of family service sharing app (restricted by NDA)

SKILLS and TECHNOLOGIES

AWS, Python, Azure, Docker, JavaScript/Node.js/Typescript, .NET Core, Ruby/Rails, PostgreSQL, GraphQL, Redis, SSMS, Git/Github, REST APIs, React/Redux, Jira

EDUCATION and CERTIFICATION

- AWS Certified Solutions Architect (Associate) December 2021
- Launch School mastery-based software development (2016 - 2017, 2019 - 2020)
- Columbia University - Chemical Engineering (1999-2004, 20 credits remaining)