

Nick Sawhney

New York, NY · nicksawhney.github.io/me · Software Engineer — Economic Research & AI Systems

PROFILE

Senior Software Engineer with 6+ years building high-stakes systems at the intersection of AI, fintech, and economic research. Deep experience designing LLM-powered pipelines, scalable cloud backends, and data products that reach millions of users. Proven track record of shipping end-to-end — from database design and ML extraction to integrations and client-facing features — at companies ranging from hypergrowth startups to Amazon-scale infrastructure. Passionate about accessible data and social impact.

TECHNICAL SKILLS

Languages:	Python, Java, Go, JavaScript, TypeScript, SQL, C++
AI / ML:	LLM Pipelines, RAG, Agentic Tooling, OpenAI, Langchain, TensorFlow, Keras, Sklearn, NLP, Numpy, Pandas
Backend:	Django, Flask, REST APIs, Microservices, Docker, AWS (EC2, S3, Boto), Azure, Google Cloud
Data:	PostgreSQL, Elasticsearch, ETL/ELT, Data Modeling, Jupyter, Matplotlib, Seaborn
Frontend:	React, HTML/CSS
Practices:	System Design, Distributed Systems, TDD, Pytest, Git, Agile, On-Call Operations

EXPERIENCE

Software Engineer — AI & Backend

EvolutionIQ · Dec 2023 – Present

- Architected and built the entire backend and AI insights engine for the workers' compensation line of business from the ground up — spanning LLM extraction pipelines, core business logic, database schema design, and horizontal scaling.
- Designed and shipped production LLM pipelines for structured data extraction from complex insurance documents, dramatically reducing manual review time.
- Built and led adoption of agentic tooling infrastructure, enabling the full engineering team to leverage AI agents effectively in day-to-day development workflows.
- Delivered full-stack features across data engineering, application services, third-party integrations, and frontend — shipping thousands of lines of production code.
- Served as technical lead and product advisor, shaping roadmap direction from both an engineering feasibility and user-experience perspective.
- Acted as client-facing technical representative, directly collaborating with enterprise integration teams to scope, design, and deliver cross-system solutions.

Software Development Engineer — FinTech

Amazon · 2022 – Dec 2023

- Built and maintained Java-based AWS payment batching and transmission infrastructure processing over \$1 trillion/year to business vendors globally.
- Led international expansion efforts, delivering payment system support for Turkey, UAE, Egypt, and Bahrain — each requiring regulatory-aware architecture changes.
- Designed and implemented a full-stack partner service health monitoring system, increasing business resilience and real-time observability.
- Spearheaded operational excellence initiatives: rewrote Standard Operating Procedures and restructured on-call ticket taxonomy, significantly reducing mean time to resolution.

Software Engineer — Simulation & Research

Urvin Finance · 2020 – 2022

- Built a heterogeneous agent macroeconomic simulation library in Python from scratch, used for macro modeling and research.
- Designed cloud microservices architecture on Azure with Docker containers for simulation deployment and inter-process message passing.
- Contributed to macroeconomics research paper as co-author based on modeling and analysis of simulation outputs.

Software Engineer — Viral Products

Bernie Sits App · 2021

- Built and scaled a viral meme-creation web application (Flask, OpenCV, Google Maps, Heroku) that handled 9.8 million requests over 4 days amid global press coverage.
- Featured in NYTimes, BuzzFeed, Wired, and Insider; managed crowdfunding campaign to sustain API infrastructure under unexpected scale.

Software Engineering & Data Science Intern

Skopos Labs · 2019 – 2020

- Built and maintained a financial simulation and ETL library for ML engineers using Pandas, with automation pipelines on AWS EC2, SQL, Elasticsearch, and Boto.
- Managed junior interns on data science projects; championed test-driven development practices using nose and pytest.

Software Engineer — Data Visualization

NYU Social Media & Political Participation Lab · 2021

- Designed and implemented a real-time + historical Twitter data visualization dashboard (Plotly, Flask, MongoDB, Pandas) to enable data accessibility for ML researchers.

EDUCATION

BA in Computer Science, Economics & Politics — New York University, College of Arts & Sciences, Class of 2020

GPA: 3.87 · Magna Cum Laude