

Ying Wang

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Skills

Fullstack: React.js, Next.js, Nx, TypeScript, Tailwind CSS, Headless UI, Supabase, Zod, Node.js, Deno, Ruby on Rails, Django, Flask, Python, REST APIs

Data: Airflow, SQL, Spark, BigQuery, Monte Carlo / Data Observability, Kafka, Pub/Sub, Fivetran / ETL, Castor / Data Catalogs, AutoML

DevOps: Terraform, CloudFormation, AWS, GCP, Docker, Kubernetes, Sentry, bash / shell

Testing: PyTest, Cypress, Playwright, Postman, hypothesis, Jest

Experience

TopRight

Arlington, VA

Co-Founder / CTO

June 2023 - November 2023

- Negotiated developer access to Plaid original bank statements beta, and implemented a mortgage application document digital twin and automated document collection for borrowers and co-borrowers in 3 months from scratch using TypeScript, Next.js, Nx, and Supabase (<https://apply.gotopright.com>).
- Implemented AI loan officer in 48 hours after OpenAI released its Beta Assistants product to assist with top-of-funnel lead nurturing and generation.
- Assisted with \$1.1M pre-seed fundraise, including sourcing \$100k in soft commitments from angel investors, pitch deck creation / iteration / feedback, investor relations, and investment strategy.

Caribou

Arlington, VA

Senior Software Engineer, Data

July 2020 - January 2023

- Wrote company general ledger from scratch solo using SQL in 1 month (5 months ahead of schedule) for automating finances using NetSuite (board-critical project to support 409A valuation).
- Implemented incremental refresh and partitioning strategy for data lakehouse for cost optimization initiative, reducing cloud spend by \$120k per year.
- Migrated GCP DataFlow pipelines to GCP Composer + GCP BigQuery SQL during month-long Sev1 outage in 1 week, helping maintain relationships with strategic company partners responsible for 70% of TOFU. Increased system reliability from <90% to 99.99%. Improved analyst experience by reducing data warehouse refresh latency from 6 hours to 10 minutes.
- Founded and scaled the data engineering team from myself to 10 people (7 FTEs including EM, PM, 3 mid-level, 1 junior + 3 contractors). Wrote and published job descriptions, developed multiple bespoke data practicums, interviewed >25 job candidates for {PM, EM, IC} roles, mentored junior analyst through 2 promotions to mid-level IC in 12 months, drafted and got approval for a \$250k+ contract engineer expansion engagement.

- As tech lead, reviewed IC design and implementation of single-touch marketing attribution, offline ads conversion platform hydration (enabling 3x TOFU @ 10% increase in CAC), data system health metrics (99.99% general pipeline uptime) for monthly C-suite reports, Airflow 1.x to 2.x migration, CI for Airflow using k8s + ArgoCD, data quality testing/alerting with bespoke logic + Monte Carlo, in-house Kafka-based streaming ETL framework, etc.

Bytes by Ying (<https://bytes.yingw787.com>)

Author

Arlington, VA

October 2018 - Present

- 70,000 page views and 40,000 visitors from 150 countries with 10% return rate
- 3x Hacker News front page

Kinetica DB

Software Engineer | Developer Tools, Data Engineering

Arlington, VA

February 2018 - October 2019

- Product owner for Kinetica I/O (graph-based ETL tool for structured & semi-structured data):
 - Integrated Apache Spark as a data acceleration layer to boost data ingestion speeds by >2000x (1K records in 4 seconds → 20M records in 35 seconds)
 - Implemented engineering processes to shorten sustainable feature development lifecycle from 3 weeks to 1 day, directly reducing time-to-close for multiple \$1-10M enterprise B2B commitments.
 - Implemented support for ESRI Shapefile ingestion supporting GIS use cases within Kinetica, part of the core product offering's market differentiation and value add.
 - Designed and implemented data-driven integration test harness in support of rapid test-driven development with support for test auto-generation, improving MTTR by 3x.

Xometry

Software Engineer | Full-Stack

Bethesda, MD

December 2016 - February 2018

- Implemented and deployed production-grade AI/ML service for cost and win rate calculations leading a team of 4, key value proposition as company grew to \$2.1B IPO.
- Prototyped front-end expediting shipping feature, contributing to primary expedite shipping functionality generating \$10K in first week of production.
- Migrated parts of internal ERP software from Jinja / Angular / jQuery to React.js, boosting developer productivity 5x and improving page performance 3x.
- Migrated parts of landing page from WordPress to bespoke solution by developing Craft CMS templates, allowing sales/marketing to add site content without developer input while scaling to 4000+ requests per day.

Education

Duke University (Durham, NC)

B.S.E, Electrical and Computer Engineering (3.23/4.00)

2012 - 2016