

Ying Wang

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Experience

TopRight

Co-Founder / CTO

Arlington, VA

June 2023 - November 2023

- Negotiated developer access to Plaid original bank statements beta, and implemented digital 1003 and automated document collection for borrowers and co-borrowers in 3 months from scratch using TypeScript, Next.js, Nx, and Supabase (<https://apply.gotoprightright.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 pitch deck creation / iteration, investor relations, and investment strategy for \$1.1M pre-seed fundraising, including sourcing \$100k in soft commitments from angel investors

Caribou

Senior Software Engineer, Data

Arlington, VA

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).
- 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. 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 mids, 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.

Sabbatical (Tooling / Infrastructure Exploration)

Arlington, VA

October 2019 - July 2020

- Created personal dotfiles to formalize development processes: <https://github.com/yingw787/dotfiles>
- Achieved beginner-level proficiency with Haskell: <https://github.com/yingw787/thehaskellbook>

- Built TinyDevCRM, a hybrid OLTP/OLAP streaming BI framework composed of PostgreSQL, Apache Parquet, and HTTP/2 Server-Sent Events: <https://docs.tinydevcrm.com>
- Started Paint Creek Software (software contracting), >\$3k revenue in 2020 (built out a logo comparison PoC using React.js + AWS Mechanical Turk)

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

Kinetica DB

Software Engineer | Developer Tools, Data Engineering

Arlington, VA

February 2018 - October 2019

- Expanded Kinetica I/O (graph-based ETL tool for highly-structured / semi-structured data) functions:
 - 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, enabling multiple \$1M - \$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 mean-time-to-repair by >3x.

Xometry

Software Engineer | Full-Stack

Bethesda, MD

December 2016 - February 2018

- Refactored machine learning pipeline for cost and win rate calculations, brought testing coverage to ~80%, and integrated individual testing coverage and linting reports with gated commits.
- Led a team of three SWEs to refactor cost-plus pricing algorithms, contributing to a ~80% speedup.
- 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