Nicholas Wu

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Experience

Affirm, Data Infrastructure

Senior Software Engineer   Oct 2022 – Present (2 yrs 11 mos)

- Led a 6-person team to build Affirm's first-generation Data Lake (Apache Iceberg), saving $2M/year, accelerating batch pipelines by 40%, and improving dataset availability by 67%.

Software Engineer II   Jul 2020 – Oct 2022 (2 yrs 4 mos)

- Migrated from AWS Redshift to Snowflake, cutting costs by 75% ($800K → $200K annually) and ensuring reliability ahead of peak BFCM (Black Friday / Cyber Monday) 2020 traffic.
- Built a Privacy Pipeline handling 2,500+ monthly requests, preventing $2.5M/month in regulatory fines.
- Scaled the Spark pipeline to process 500B+ events per run on AWS EMR with 3k cores and 20k+ tasks.

Software Engineer I   Dec 2019 – Jul 2020 (8 mos)

- Architected an analytics (DBT) platform running 350+ datasets with CI/CD and monitoring, enabling 30+ analysts to set up in 10 minutes (vs. 2 days), automate weekly deployments (vs. 6 hours), and prevent SLA breaches from broken models.

Shopify, SDE Intern - Data Infrastructure   2018 (8 mos)

- Built a Scala service to validate 400,000 SQL queries against bi-weekly PrestoDB upgrades to detect backward compatibility breaks and performance regressions.

Hootsuite, SDE Intern - Production Operations   2017 (8 mos)

- Embraced immutable infrastructure for internal services by using: Terraform to develop IaC (Infrastructure as Code), Ansible to configure AWS instances, and Packer to build Docker images.

University of British Columbia, Undergraduate Researcher   2017 (4 mos)

- Reduced 50-100% overhead in CPU tracing by DINAMITE, a software performance analysis tool.

Safe Software, SDE Intern - Platforms   2016 (8 mos)

- Implemented the Teradata format using Java, allowing clients to read from and write to Teradata databases.

Projects

Teamfight Tactics App: Shipped a companion mobile app for the game Teamfight Tactics with 1,000+ downloads.

Atlantis (open-source): Implemented Slack integration enabling Atlantis servers to notify Slack channels.

Skills

Development: Python, SQL, Cursor.
Data: Iceberg, Snowflake, Spark, DBT, Airflow, Kafka, Flink, Monte Carlo.
Infrastructure: AWS (S3, RDS, DMS), Terraform, Kubernetes, Buildkite, Prometheus.

Education

University of British Columbia, Bachelor of Applied Science, Computer Engineering   2014 – 2019

- Recipient of Trek Excellence Scholarship: top 5% of Computer Engineering.
- Teaching Assistant for CPSC 304, Introduction to Relational Databases.