

# Patrick Liu

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## Experience

### Airtable

Software Engineer

New York, NY

Feb 2024 – Present

- Building features for App Sandbox, enabling advanced capabilities for development, change management, and deployment of no-code apps

### Addepar

Software Engineer

New York, NY

Jul 2021 – Feb 2024

- Built a tool using **JavaScript** and **Python** for correcting annotations produced by ML models on **20,000+** unstructured financial documents, meeting SLAs and ensuring correct data in clients' instances
- Led development on business-critical web app used daily by **30+ data operators** to configure and test **Java-based** data pipelines without technical knowledge, reducing operator onboarding time from months to weeks
- Led onboarding sessions, wrote documentation, and presented at an internal conference for company-wide initiative to build low-code UIs in **Retool**, enabling engineering teams to ship **30+ internal frontends** to **400+ end users** within days instead of months
- Migrated data tooling to enable Databricks-based pipelines, increasing number of financial custodians supported and processing **\$100B+ client assets per day**
- Implemented **Python Lambda functions** to run data quality checks on financial transaction data extracted from documents for reconciliation

Software Engineering Intern

Sep 2020 – Dec 2020

- Developed codegen tooling to bootstrap new financial market data pipelines in Apache Airflow using **Python**

### Apple

Software Engineering Intern

Cupertino, CA

Jan 2020 – Apr 2020

- Explored and prototyped user flows and tooling to enable new Siri developer experiences, demoed to the entire AI/ML org
- Developed tooling to train natural language understanding models using **Swift** and **SwiftUI**
- Built an interface to save, load, and filter training datasets in **SwiftUI**, allowing users to collaborate on training datasets

### Alloy.ai

Software Engineering Intern

San Francisco, CA

May 2019 – Aug 2019

- Built a modal to display related data issues in **React** and **Java**, computing relevancy on **140,000+** documents to reduce engineer triage times
- Implemented monitoring and aggregate reporting of data pipeline timing statistics in Stackdriver using **Python**, tracking **500,000+** files

### League

Software Engineering Intern

Toronto, ON

Sep 2018 – Dec 2018

- Implemented statement generation and invoice tracking using **Go** and **MongoDB**, automating tracking of outstanding balances for **100+** clients

### Hack the North

Co-Director

Waterloo, ON

Jan 2019 – Feb 2021

- Led a team of **30+** student organizers to organize Canada's biggest hackathon, attended by **1,500+** participants from around the world

Backend Developer

Mar 2018 – Dec 2018

- Designed and implemented an API leveraging QR codes to collect data on activity attendance using **Python**, processing **7,200+** scans

### Tulip

Software Engineering Intern

Toronto, ON

Jan 2018 – Apr 2018

- Architected a solution to process refunds through different payment gateways via a unified external API endpoint using **PHP** and **MySQL**

### Loblaw Digital

Software Engineering Intern

Toronto, ON

May 2017 – Sep 2017

- Built a custom CMS to publish HTML/CSS-based assets for national fashion brand homepage carousel using **Django** and **PostgreSQL**

## Education

**University of Waterloo** Bachelor of Applied Science, Computer Engineering (With Distinction)

Waterloo, ON

## Skills

### Languages

Python, Java, JavaScript, SQL, Swift, Go, PHP

### Frameworks

FastAPI, Jersey, Ember.js, React, Tailwind, Quarkus, SwiftUI

### Tools & Technologies

Git, MySQL, PostgreSQL, Terraform, Docker, AWS, Kubernetes, Retool, Node.js, MongoDB