

# Lawrence Pan

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## **Stripe** | Software Engineering Intern (Product Infrastructure)

*Jan 2020 - Apr 2020*

- Worked on the Accounts team. We own the complex data models and business logic that involve merchant accounts created on Stripe.
- Redesigned a part of the API for the accounts onboarding/compliance platform so that the integration experience is significantly better.

## **Twitter** | Software Engineering Intern (Data Infrastructure)

*May 2019 - Aug 2019*

- Added support for *end-to-end exactly-once processing* semantics in Apache Heron by implementing a variant of the two-phase commit algorithm. Details in design doc.
- Designed and implemented a system (in Scala) that made Twitter's interactive query infrastructure (Presto and Hive) GDPR-compliant.

## **PlanGrid** | Software Engineering Intern (Cloud Infrastructure)

*Sep 2018 - Dec 2018*

- Implemented centralized authentication and path-based routing in PlanGrid's Kubernetes cluster using Envoy and Istio. This greatly improved developer productivity.
- Built Spinnaker pipelines to allow *phased rollout* for ingress-related infrastructure changes.

## **DataDog** | Software Engineering Intern (Metrics Ingestion Pipeline)

*Jan 2018 - Apr 2018*

- Worked on the metrics submission pipeline that streams millions of data points per second.
- Owned the time-series metadata creation service, written in Go, by ensuring its availability.
- Migrated the service's IPC layer to gRPC to improve reliability. Implemented consistent hashing and request termination, details in blog post.

## **Universe** | Software Engineering Intern (Product)

*May 2017 - Aug 2017*

- Developed many business-critical, A/B-tested, user-facing features using React and Rails.

## **Plotly** | Software Engineering Intern (Product)

*May 2016 - Aug 2016*

- Maintained and developed features for Plotly's online plot editor built with React and Redux.

## Writings

- My one-liner Dropbox client (**HackerNews front-paged**)
- Lessons learned from writing a text editor in C (**HackerNews front-paged**)
- How gRPC helps improve reliability and fault tolerance at DataDog

## Education

### **University of Waterloo** Bachelor of Computer Science

*2016 - 2020 (expected)*

90.3% cumulative GPA, *Dean's Honours List*