Lawrence Pan

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Stripe │ Software Engineering Intern (Product Platform) *Jan 2020 - Apr 2020*

- Working on platformizing Stripe's Legal Compliance infrastructure.
- Designing APIs and abstractions to reduce integration friction so product teams can rapidly launch new financial products globally, while being compliant with local regulations.

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 a feature-rich 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

Sep 2016 - Dec 2020 (expected)
90.3% cumulative GPA, *Dean's Honours List*