Lawrence Pan

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Career values: impact, personal growth, fast pace, risk-taking
Languages: Scala, Java, Golang, Python, JavaScript, C/C++

Experience

Twitter | Software Engineering Intern   *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 | DevOps/Infrastructure Engineering Intern   *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.
- Contributed to the effort of instrumenting distributed tracing to improve visibility.

Datadog | Software Engineering Intern   *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.
- Pioneered and shipped Universe's first front-end app that consumes its new GraphQL API.

Plotly | Software Engineering Intern (product)   *May 2016 - Aug 2016*

- Maintained and developed features for a massive SaaS app built with React and Redux.
- Contributed to the development of an e2e testing framework written in Python Selenium.

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 Software Engineering
Sep 2016 - May 2021 (expected)
90.3% cumulative GPA, *Dean's Honours List*