

Stephen Melinyshyn

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Employment

Stripe

Infrastructure Intern

Jan. 2019 to Apr. 2019

Seattle, WA

- Crafted new infrastructure for the secure Cardholder Data Environment
- Enabled cross-cluster database replication by creating underlying infrastructure and custom code
- Oversaw project to guarantee timely deletion of sensitive transient transaction authentication data
- Reduced the compliance burden of credit card security standards on the rest of Stripe engineering

Apple

Safari Intern

Apr. 2018 to Aug. 2018

Cupertino, CA

Developed exciting new features for the Safari application on MacOS and iOS.

Microsoft

Backend Intern

Sept. 2017 to Dec. 2017

Seattle, WA

- Developed highly requested file storage solution for Microsoft Dynamics 365 CRM leveraging Azure
- Lowered storage costs by over 90% and provided a 30x increase in storage capacity
- Implemented secure valet-key design pattern to handle the scale of Fortune 500 companies
- Ensured backwards compatibility with legacy enterprise software

Shopify

Backend Intern

Jan. 2017 to Apr. 2017

Toronto, ON

- Reduced response time by over 70% on key webpages by refactoring, optimizing database tables, and caching expensive calculations
- Shipped and ran zero-downtime schema migrations on active tables with millions of rows of critical data
- Coordinated with Amazon to integrate modern API changes and eliminate deprecated API

Wattpad

iOS Developer Intern

May 2016 to Aug. 2016

Toronto, ON

- Ran numerous A/B experiments to boost user engagement, retention, and satisfaction
- Increased monthly usage by over 10 million minutes on mobile

Projects

Dropboxfs, an in-memory filesystem for Dropbox – bit.ly/dropbox_fs

- Designed and implemented an in-memory filesystem in userspace (FUSE) that connects to Dropbox written in Go
- Allows for users to access their Dropbox contents on demand without requiring disk space
- Supports all regular file operations and synchronizes changes across devices

Fastify – bit.ly/fastify

- Prize-winning Download Accelerator as a Service written in Go at QHacks
- Coordinated an EC2 cluster to download then seed files with BitTorrent to achieve 4x typical download speeds for clients

Nfinite.space – bit.ly/nfinite

- Award-winning cloud storage service that stores files without the need for a datacenter by intelligently and dynamically sharding files to connected peers
- Solely responsible for developing our backend using Go and CockroachDB on AWS

NearbEYE – bit.ly/nearbeye

- Winning augmented reality Swift app to help explore the City of Waterloo with open data
- Implemented model layer and key algorithms for selecting relevant data based on user location and compass direction

Project Clay, a Twitter Activity Service – bit.ly/projectclay

- Recreated a personalized version of Twitter's "Activity" feature in Go with MongoDB
- Collected, analyzed, and stored millions of tweets in order to detect near real-time events using AWS

Skills

LANGUAGES

Go
Ruby
Objective-C
C++
SQL

TOOLS

Vim
Xcode
Instruments
Git
AWS
GDB
MySQL

Awards

Apple Inc, WWDC Scholarship

- Won international competition for a ticket to Apple's World Wide Developers Conference in 2014, 2015 and 2016
- Developed an Objective-C & Swift application with creative and playful UI
- Judged and chosen by Apple out of thousands of applicants to receive scholarship each year

QHacks, Best Use of AWS Feb. 2017
Awarded for work on Fastify.

Hack The North, Best Use Of AWS Sept. 2016
Awarded for work on Nfinite.space.

CODEFest, 3rd Place Oct. 2015
Awarded for work on NearbEYE.

Tech Retreat Hackathon, 1st Place Aug. 2015
Awarded for work on MarketMesh.

Education

University of Waterloo

BSE Software Engineering 2020

President's Scholarship of Distinction, President's International Experience Award

Interests

Biking, Boarding, Hiking, Photography, Ping Pong, and Twitter