

Neeilan Selvalingam

Experience

Pinterest

San Francisco, CA
Summer 2019

Software Engineer Intern

Designed and implemented Land Queue, a transparent pre/post-submit testing and merging service for high-traffic monorepos.

Tools: Java, Git, Phabricator, Apache Kafka, Jenkins

Google

Cambridge, MA
Spring 2019

Software Engineer Intern

Implemented a distributed latency and SLO monitoring system for Flights.

The service tracks data latency with ± 1 ms resolution (old solution was ± 30 sec).

Tools: Go, C++, Chubby, Google Pub-Sub, Spanner

amazon

Vancouver, BC
Summer 2018

Software Engineer Intern

Researched explainability of black-box machine-learning models like MLPs.

Presented shortcomings of existing random-forest models to broader team.

Tools: Python, TensorFlow, scikit-learn, XGBoost

Google

Mountain View, CA
Spring 2018

Software Engineer Intern

Designed & built a cross-device culprit-finder for Android Search (1 bn+ users).

Implemented $O(\log n)$ culprit search algorithm to scale to 150k+ daily commits.

Created APK Builder service which saves up to 75 mins/call by caching artifacts.

Tools: Java, Python, BigStore, gRPC, BuildRabbit

Projects

Deep PBP

git.io/fjvsh

3D ConvNet model to generate play-by-play labels for NBA broadcast footage.

Achieved 91% test accuracy on makes vs misses, and 74% accuracy with shot distance (4 classes), with the test set roughly equally divided between classes.

neeilang

git.io/JeDgv

Fast, type-safe, OOP language that generates x86-64 assembly or re-targetable

LLVM IR. Fully handwritten (no lexer/parser generators) in ~5k lines of C/C++.

domain.io

git.io/fjvGf

Open-source library which provides useful abstractions atop socket.io.

Enables domain modeling and precise data-pushing to specific devices.

Downloaded over 500 times on JavaScript's npm package manager.

Education

UToronto

Scarborough, ON
09/14 - 12/19

Bachelor of Science Candidate

Dean's List - each semester

Undergrad TA - Intro to CS, 2018 + 2019

2017 NSERC USRA recipient (\$6000)