

## LIU LU

### HIGHLIGHTS

Led machine learning project in network analysis; this resulted in a [patent](#)  
Ran a [start-up](#) in mobile centric software for trucking navigation and dispatching

### TECHNICAL EXPERIENCE

#### Software Engineer, [Google Inc](#) Jan 2017 – present

- Performed search quality evaluation on rater and live user traffic, leading to two launched projects and one journal entry
- Improved readability, revamped API, reorganized code modules, and created more consistent user experience by working in a team to refactor a series of legacy infrastructure code in the Google search stack
- Designed and implemented data pipeline lines using C++ Flume, borgcfg, a SQL-like query language
- Improved monitoring in backend infrastructure, which enabled the launch of two new search features
- Improved monitoring in backend search infrastructure, which enabled the launch of two new search features

#### Full-Stack Web Developer, [Freelance](#) June 2016 – August 2016

- Sole developer for a database-backed website using Django web framework; hosted on Python Anywhere
- Designed responsive, intuitive UX that preserved the artistic vision
- Balanced speed of development with maintainability, security, and scalability

#### Software Engineer Intern, [Jigsaw \(formerly Google Ideas\)](#) Apr 2015 – Sept 2015

- Patent pending for unsupervised machine learning framework: detect DoS attacks targeting journalists by clustering on features derived from incoming network traffic logs
- Major contributor in refactoring and implementing logging, data aggregation, and data visualization features
- Worked with AppEngine on Google Cloud Engine, Nginx, BigQuery

#### Software Engineer Intern, [Google Inc](#) Jan 2014 – Apr 2014

- Worked on production-critical, cross-team search features
- Implemented a protocol buffer sharing service between Java and C++

### STARTUP EXPERIENCE

#### Entrepreneur, [Laurier Launchpad](#) Jan 2015 – Apr 2015

- Founded a mobile-centric trucking navigation and dispatching startup
- Developed novel tactics to interview key customers and stakeholders
- Integrated interview feedback into minimum viable products

### EDUCATION

**Bachelor of Computer Science with Joint Honours in Combinatorics & Optimization, [University of Waterloo](#) 2011–2016**  
87.6 Cumulative Avg (3.9 GPA equivalent); with distinction and Dean's Honor List

**Bachelor of Business Administration, [Wilfrid Laurier University](#) 2011–2016**  
10.9 Cumulative GPA (3.7 GPA equivalent); on the Dean's Honor List

### PERSONAL PROJECTS

Github: [github.com/LiuChenLu](https://github.com/LiuChenLu)

- Functional evolutionary Boids simulating emergent behaviour, *Haskell*
- Context-free parsing applied to English language via CYK algorithm, *Python*