Emmanuel Lee

Software Engineer

💼 Employment History

Software Engineer at Uber, Toronto

May 2019 — Present

Uber Commute - a brand-new product: true ride-sharing for commuters

- Led the design and development of the presentation and business logic layers between mobile apps and core trip-fulfillment services.
- Commended by my manager and team for my coordination of the final end-to-end bug-squashing effort that resulted in a successful launch.

Marketplace Monitoring and Diagnostics - internal tools that enable rapid, actionable response to degradation in marketplace metrics worldwide

- Led an integration with Marketplace Experimentation team to provide experiment creators with city-based monitoring and alerting in case of either negative side effects or market degradation affecting results.
- Applied clean, robust design principles and managed stakeholder requirements to create a new server-side API for our alerting tool.

Software Engineer at Uber, Seattle

June 2017 — May 2019

Scheduled Rides - platform and in-app feature for booking rides in advance

- Led the project management, implementation, experimentation and impact analysis of major features aimed at reassuring riders of their upcoming scheduled rides, coupled with a migration to Uber's latest matching engine. Resulted in +$2MM in annualized net profit.
- Led the collaboration to fulfill all Uber Health trips through the scheduled rides platform. Uber Health launched in March 2018.
- Collaboratively scoped the fulfillment of first- and last-miles of all Uber Copter bookings with scheduled rides. Launched publicly in July 2019.

Uber Movement - sharing and visualizing anonymized data to help improve urban planning around the world

- Full-stack feature work and observability engineering to prepare for launch. Uber Movement launched publicly in August 2017.

Software Engineering Intern at Uber, San Francisco

August 2016 — December 2016

Uber Eats: Search and Home Feed - leveraging data and analytics to help every customer effortlessly decide what to order

- Kick-started the localization of search results as Uber Eats began expanding internationally. Prototyped a Spanish auto-completion engine using Elasticsearch, data pipelines and Python scripts.
- Applied ML-ranking to Top Categories list, boosting usage rates +30%.
- Deployed an intelligent manager of the exploration vs. exploitation trade-off among type-along suggested results.

Details

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Skills

Service-oriented architecture

API design

Experimentation

Monitoring and observability

Cross-team/org collaboration

Agile project management

Product design

Go

Java

C++

Python

JavaScript

C#/.NET

HTML/CSS

SQL

Git

Machine learning and AI

Links

Personal website

LinkedIn profile

Software Engineering Intern at Microsoft, Redmond

January 2016 — April 2016

Azure AD Gateway - reverse-proxy to all AD cloud identity services

- Shipped a complete monitoring suite (metrics, test runners, dashboards, alerts and logs) for a critical new distributed web service.

Program Manager Intern at Microsoft, Redmond

May 2015 — August 2015

Windows Updates and Security - sourcing, triaging and scheduling the necessary updates and security patches for all versions of Windows

- Spearheaded investigation of kernel conflicts between Windows Updates and third-party software, which impacted millions of users.

Software Engineering Intern at Connected, Toronto

August 2014 — December 2014

- Launched Connected's first client project (SNYPR): a sports-training app backed by Eric Schmidt's venture fund. Full-stack iOS.

Software Researcher Intern at Epson, Markham

January 2014 — May 2014

Epson Canada's EDGE research group

- Built testing and validation tools for a team using 3D computer vision robotics and learning algorithms to classify deformable objects.

Android Developer Intern at InfoMax, Markham

May 2013 — August 2013

- Developed an Android app from scratch, providing customers a mobile manager of the proprietary digital form information-capture solution.

🎓 Education

Software Engineering, University of Waterloo

2012 — 2017

🌱 Extra-curricular activities

Software Researcher at University of Waterloo

2016 — 2017

SAT-solver on GPUs - 4th year design project

- Our team collaborated with a PhD student and professor attempting to accelerate SAT-solving using massive parallelization on GPUs.
- Won *GM Canada Innovation Award* for "... collaborative learning, innovative concept development and commercial application."

Software Developer at University of Waterloo

January 2017 — April 2017

Amazon Alexa Fellowship

- Our team was chosen to pilot an academic partnership with Amazon.
- We built a home lighting solution that used Fuzzy Logic to understand and act on natural phrases such as "It is too bright in the living room!"