Emmanuel Lee

4A Software Engineering

Employment

Microsoft, Software Engineering Intern

Jan - Apr 2016

- Joined the Azure AD 'Gateway' team: a reverse-proxy guarding all AD identity services, e.g. Office 365.
- Shipped a complete health/functionality monitoring solution with comprehensive runners, metrics, dashboards, alerts and logs for a critical distributed web service—ensuring high availability/reliability.

Sharbud, *Software Developer*

Jan - Apr 2016

- Contracted to a "localized sharing of goods" startup in boutique consulting company's Tech division.
- Wrote a Stripe delayed-payments API and real-time user chat using ASP.NET and Entity framework.

Microsoft, Program Manager Intern

May - Aug 2015

• Spearheaded the investigation/mitigation of categories of 3rd-party post-rel regressions from Windows Updates that hurt 10's of millions of users, cost \$millions, and ruin Microsoft PR in the news/media.

Connected Lab, Software Engineering Intern

Aug - Dec 2014

- Started during inception of hyper-growth IoT solutions startup with amazing culture and mentors.
- Launched their first client's project (http://snypr.com): a sports-training app backed by Eric Schmidt's venture fund. Full-stack iOS: from CRUD, to interactive workouts, to infinite-paging leaderboards.
- Crafted webpage prototype that won Union Station's grand reopening \$1M+ project out of 40+ RFPs.

Epson, *Software Engineering Intern*

Jan - May 2014

• Joined a research team solving the extremely difficult problem of using 3D computer vision to identify deformable objects. Wrote an image-comparison tool reducing evaluation time of test results by 3x.

InfoMax Technologies, Android Developer Intern

May - Aug 2013

• Built next-gen prototype of a paperless upgrade to current forms and digi-pen data-capture product.

Education

Software Engineering (BSE Candidate), University of Waterloo

Graduating May 2017

• Data Structures, Algorithm Design, Networks (TCP/IP), Concurrency, OS, Security, AI/Machine Learning

Activities and Projects

SAT Solver on GPUs, Software Researcher

Apr 2016 - Present

• 4th year project: collaborating with PhD student and prof to parallelize satisfiability solver using GPUs.

Startup Weekend Toronto, *Software Developer*

Nov 21-23, 2014

- Ranked top 5 in international startup hackathon sponsored by Google for Entrepreneurs and Amazon.
- Built indoor traffic monitoring system in one weekend. Triangulated 140+ smartphone RSSI's using Raspberry Pi scripts, and displayed their locations on a D3.js floorplan heat map hosted on AWS.

UW Chinese Christian Fellowship, Chair

2014 - Present

• Leading the committee to organize weekly gatherings, retreats, and special events for 120+ members.

Prayer Box, Android Developer and UI/UX Designer

2013 - 2014

• Created our fellowship's first mobile prayer request sharing app with a friend: had 60+ regular users.

Skills

Java, C, C++, Python, C#, Objective-C, JavaScript, jQuery, Angular, d3, HTML/CSS, UNIX/Linux, PostgreSQL