Sanae Rosen

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Education

University of Michigan - PhD *2011-2016*
Computer Science and Engineering (Software). Over 300 citations.
Thesis: *Improving mobile network performance through measurement-driven system design approaches.*

University of Toronto - BASc *2007-2011*
Engineering Science (Major in Electrical and Computer Engineering). GPA 3.78.

Industry Work Experience

Yelp Inc. Software Engineer (Core Android team) *Feb. 2017-Present*
- Lead the Android portion of developing Yelp's next generation mobile API
  - Evaluated and designed a network client based around GraphQL
- Built a system to monitor and manage all mobile traffic on the Yelp app
  - Presented initial version at SF Droidcon 2018
  - Released as open source project (android-varanus) in 2020
- Helped rewrite the Android SERP page to use a modern, component-based architecture
- Other infrastructure projects include CI, data persistance, app modularization

Select Research Experience

Network Energy Efficiency of Mobile Apps *2015*
- Evaluated the impact of energy problems on end users, managing a 2-year user study of real users
- Uncovered systematic problems in energy management that can double network energy consumption

RRC State Dynamics *2014*
- Developed a framework to crowdsource measuring the performance impact of radio power states
- Uncovered new performance problems adding network delays on the order of seconds

AT&T Research Internship *2013, 2014*
- Evaluated predictability of user network content
- Designed a system to allow apps to time-shift data over hours based on network load predictions
- Showed through a city-scale simulation the overhead of delay-tolerant network traffic can be halved

Primary skills: Kotlin, Java; mobile networking, Android infrastructure generally, Python
Major platforms and tools: Android, Gradle, Firebase Testlab, Jenkins, Linux and bash, Docker