

EDUCATION

Seattle, WA	University of Washington	2014–2017
<ul style="list-style-type: none">• PhD in Computer Science and Engineering• Thesis: Designing Technology for Existing Infrastructure in the Developing World• Research: Mobile systems and technology for the developing world (ICTD)		
Seattle, WA	University of Washington	2011–2014
<ul style="list-style-type: none">• MS in Computer Science and Engineering, GPA 3.66 of 4.0• Research: Machine learning to classify motor cortex signals for brain-computer interfaces		
Cambridge, UK	University of Cambridge	2010–2011
<ul style="list-style-type: none">• MPhil (Master's Degree) in Neuroscience, no grades awarded in UK system		
Seattle, WA	University of Washington	2004–2009
<ul style="list-style-type: none">• BS in Neurobiology; BA in English; BA in Philosophy, GPA 3.89 of 4.0		

RELEVANT EMPLOYMENT

Software Engineer	Substack	2021–Present
<ul style="list-style-type: none">• Senior engineer on the team responsible for writer-facing surfaces.• Leading Substack's podcasting product. Rewrote audio processing pipeline and led live changeover to new system.• Co-designed and implemented audio free preview feature, leading to substantial revenue bump for affected writers.		
Software Engineer	Google	2017–2021
<ul style="list-style-type: none">• Chrome for Emerging Markets. Developed server-side pipelines and services improving page load times.• Created web-based front-end of task management prototype.		
Software Engineering Intern	Google	Summer 2016
<ul style="list-style-type: none">• Chrome for Emerging Markets. Developed SemCache (published as Siskin), a Chrome App and Extension to save and share web content, with minimal configuration, on the local network.		
Software Engineering Intern	Google	Summer 2015
<ul style="list-style-type: none">• Chrome for Emerging Markets. Developed Android app as internal prototype.		
Software Engineering Intern	Yelp	Autumn 2013
<ul style="list-style-type: none">• Implemented web-based visualization platform rendering data from Amazon EC2. Provided map-based visualizations using the Google Maps APIs.		

PUBLICATIONS

- Knowledge, attitudes and practices related to tuberculosis in pharmacy workers in a cross-sectional survey in El Agustino, Peru. Patricia J García, Gustavo Hernández-Córdova, Paria Pourjavaheri, Hilbert J Gómez-Paredes, **Samuel Sudar**, Angela M Bayer. *PLoS one*, 2018.
- Siskin: Leveraging the Browser to Share Web Content in Disconnected Environments. **Samuel Sudar**, Matt Welsh, Richard Anderson. *COMPASS 2018*.
- Designing Technology for Existing Infrastructure in the Developing World. **Samuel Sudar**. *PhD Thesis*.
- Open Data Kit 2.0: A services-based application framework for disconnected data management. Waylon Brunette, **Samuel Sudar**, Mitchell Sundt, Clarice Larson, Jeffrey Beorse, Richard Anderson. *ACM MobiSys 2017*.

- Computer Security for Data Collection Technologies (**Invited Submission**). Camille Cobb and **Samuel Sudar**, Nicholas Reiter, Richard Anderson, Franziska Roesner, Tadayoshi Kohno. *Development Engineering 2018*.
- Demo: Siskin: Leveraging the Browser to Share Web Content in Disconnected Environments. **Samuel Sudar**, Matt Welsh, Richard Anderson. *CHANTS 2017*.
- Computer Security for Data Collection Technologies. Camille Cobb and **Samuel Sudar**, Nicholas Reiter, Richard Anderson, Franziska Roesner, Tadayoshi Kohno. *ICTD 2016*.
- DUCES: A Framework for Characterizing and Simplifying Mobile Deployments in Low-Resource Settings. **Samuel Sudar** and Richard Anderson. *ACM-DEV 2015*.
- **Demo**: Open Data Kit 2.0 Tool Suite. **Samuel Sudar**, Waylon Brunette, Gaetano Borriello. *ACM MobiSys 2014*.
- **Video**: Open Data Kit Tables. **Samuel Sudar**, Waylon Brunette, Gaetano Borriello. *ACM MobiSys 2014*.
- ODK Tables: Case Studies in Deployment. **Samuel Sudar**, Saloni Parikh, Mitchell Sundt, Gaetano Borriello. *ACM DEV-4 2014*.
- ODK Tables: building easily customizable information applications on Android devices. Waylon Brunette, **Samuel Sudar**, Nicholas Worden, Dylan Price, Richard Anderson, Gaetano Borriello. *ACM DEV-3 2013*.
- P53 is required for the developmental restriction in Müller glial proliferation in the mouse retina. Ueki Y, Karl MO, **Sudar S**, Pollak J, Taylor RJ, et al. (2012) *Glia* 60: 1579–1589.
- **Poster**: A method for Culturing Cristae in Vitro. Amber Slowik, Byron Hartman, **Sam Sudar**, Olivia Bermingham-McDonogh. *Northwest Auditory Vestibular Research Meeting 2010*.
- **Poster**: Harnessing Regeneration Potential of the Mammalian Retina. **Samuel Sudar**, Mike Karl, Tom Reh. *University of Washington South Lake Union Poster Session 2009*.

RESEARCH EXPERIENCE

ICTD, Mobile Systems	PhD Research	2012–2017
<ul style="list-style-type: none"> • Building for existing infrastructure in resource-constrained environments • Advisor: Gaetano Borriello, Richard Anderson • Location: University of Washington 		
Machine Learning	Master’s Research	2011–2013
<ul style="list-style-type: none"> • Using ensemble machine learning techniques to classify hand movements using brain signals • End goal of driving a robotic hand with neural signals • Advisor: Rajesh Rao • Location: University of Washington 		
Pseudogenes	MPhil Research	2010–2011
<ul style="list-style-type: none"> • Molecular biology techniques to elucidate the potential involvement of an Oct4 pseudogene in the mouse remyelinating spinal cord • Advisor: Robin Franklin • Location: University of Cambridge 		
Inner Ear Regeneration	Postgraduate Research	2010
<ul style="list-style-type: none"> • Developed cell culture techniques of inner ear hair cells for molecular biology research. • Principal Investigator: Olivia Bermingham-McDonogh • Location: University of Washington 		
Retinal Regeneration	Undergraduate Research	2007–2009
<ul style="list-style-type: none"> • Worked with postdoc Mike Karl to investigate Müller Glia-mediated regeneration in the mammalian retina • Principal Investigator: Tom Reh • Location: University of Washington 		

- Analyzed neuronal response data to characterize cortical activation in the mammalian visual cortex.
- **Principal Investigator:** Helen Sherk
- **Location:** University of Washington

PROJECTS AND OPEN SOURCE CONTRIBUTIONS

- **eg (2015–Present):** Created popular project providing examples of Unix commands.
- **SemCache (2016):** Chrome App and Extension to save, discover, and share web content on the local network (published as Siskin).
- **Robolectric (2014):** Contributor to this popular open source Android testing framework. Added support for testing PreferenceFragment objects. Enhanced XML resource resolution.
- **ODK Tables (2012–2015):** Lead developer on open source Android framework for app creation. Introduced testing. Sped up and aligned development cycles between teams by introducing build tools. Ongoing work on performance enhancements and feature requests.
- **Let it Ride (2012–2014):** Lead developer of Android sports betting app released in alpha for the 2013 season on Google Play. Wrote client- and server- side code and tests. Includes Android, Google Cloud SQL, and Hibernate components.

LANGUAGES AND TECHNOLOGIES

- Java, Python, JavaScript, Go, HTML, SQL, Protocol Buffers, Polymer, Android, Unix, Git, Node, Gradle, Android Studio. Familiar with languages in the C family.

COMPANIES

- **GETLO LLC (2012–2014):** One of two founding members of this Washington State software development company. Shared operations lead and lead developer. Product, Let it Ride, was available on the Android store from 2012–2014.

TEACHING EXPERIENCE AND SELECTED AWARDS

- **Introduction to Android Programming (2016):** Designed and taught a 300-level course introducing students to Android. Over 30 students, one hour a week, covering Android basics, application design, and testing.
- **Google Research Grant (2016):** Funding from Google Chrome to support development of SemCache over the final year of my PhD.
- **Fogarty Global Health Fellowship (2014):** NIH-funded research project for a year in Peru to apply ICTD to the detection and treatment of tuberculosis
- **Gates Cambridge Scholarship (2010):** Highly competitive scholarship to study in the UK, awarded to 85 students globally
- **TA for Introduction to Brain-Computer Interfaces (2012):** Oversaw students in this course and helped them perform basic machine learning analysis of BCI data
- **Johnian Society Travel Grant (2011):** Funding from St John’s College, Cambridge to finance “adventurous” travel.
- **Bonderman Travel Fellowship (2009):** \$20,000 to fund eight months of solo world travel
- **Mary Gates Research Scholarship (2009):** Two quarters of funding to undergraduates conducting high caliber research
- **University of Washington Department of Philosophy Outstanding Graduating Senior (2009):** Awarded to senior with top grade points at the department and university level and who has made a contribution to the study of philosophy
- **Goldwater Scholar Honorable Mention (2008):** National competition for approximately 300 exception undergraduates planning careers in research
- **UNCF-Merck Grant (2008):** One quarter of tuition for the top four University of Washington Department of Biology undergraduates
- **Phi Beta Kappa Inductee (2008):** Member of the oldest and most prestigious honor society in the US

- **Washington Farm Credit Services Scholarship (2008):** Merit-based scholarship awarded to students raised on farms
- **Croatian Fraternal Union Scholarship Award (2008):** Merit-based scholarship awarded to students of Croatian descent
- **National Society of Collegiate Scholars (2008):** Member of the undergraduate honor society
- **Washington Scholar (2004):** Complete tuition to a public university in the state of Washington. Awarded to top high school seniors based on academic merit and community involvement.
- **Mary Gates Honors Scholarship (2004):** Two years of tuition to 12 University of Washington freshmen
- **Pulliam Scholarship (2004):** Awarded to Mark Morris High School senior with highest GPA and SAT scores
- **Eagle Scout (2004):** Highest rank in the Boy Scouts of America upon completion of a substantial service project