

Novall Y. Khan

Curriculum Vitae

@novallkhan | scholar.harvard.edu/novallkhan | San Francisco, CA | Cupertino, CA

Summary

As a Software Engineer with 8 years of mobile app programming experience and 2 years of UX research experience, I am an expert in building elegant interfaces and highly performant software. I specialize in native iOS development; fluent in Swift and Objective-C, and proficient in Git source control, crash reporting, and analytics. In the course of my career, I have built and maintained 12 apps for universities, hospitals, startups, and Fortune 500 companies. I enjoy contributing to the development community by speaking at international conferences, mentoring, and writing posts on the latest programming topics. I was a Startup Worcester recipient, and was named one of the Top 10 Leading Women in the Cocoa Community by Envato.

Professional Experience

Software Engineer, **Apple**, Cupertino, CA (April 2020 – Present)
Unannounced.

iOS Engineer, **Lose It!**, Boston, MA (October 2018 – October 2019)
Maintained Lose It!'s core iOS app, with a user base of over 35 million, and monthly actives of over 3 million.

iOS Engineer, **OpenCity Inc.**, Boston, MA (January 2018 – October 2018)
Built OpenCity's first native iOS application. Currently developing advanced features for businesses to interact with customers via text, including Artificial Intelligence and Machine Learning integrations.

iOS Engineer, **Splitwise**, Providence, RI (March 2015 – March 2017)
Developed new features for Splitwise's iPhone app and expanded Splitwise's platforms to the iPad and Apple Watch
Contributed to product, research, user support, and Apple Relations

iOS Engineer, **ShapeUp Inc.**, Providence, RI (August 2014 – February 2015)
Built and maintained native iOS apps for the ShapeUp platform
Experience with Objective-C programming, Xcode, App Store submission, git source control, integrating third-party libraries and APIs, Cocoa Pods, data persistence, code reviews, scaling projects, debugging and bug tracking systems, working directly with clients, QA tracking, constructing interfaces via storyboards, nibs, and programmatically

iOS Engineer, WillowTree Apps, Charlottesville, VA (December 2013 – July 2014)
Built native iOS apps for Fortune 500 companies and various industries in healthcare, business, sports, entertainment, education, and gaming

iOS Engineer, Pink Chalk Labs, San Francisco, CA (December 2012 – December 2013)
Designed, programmed, and launched a mindfulness-based iPhone app on the App Store, ThoughtCloud+ (Additional apps: PawsAddition, ThoughtTracker)
Experience building and designing apps, completing each step in the app life cycle

Researcher, Schacter Memory Lab, Harvard University, Cambridge, MA (July 2012 – May 2013)
Principal Investigators: Daniel L. Schacter, Karl K. Szpunar
Managed participant recruitment, data collection, and data entry
Assisted with experimental design and construction of study materials on E-Prime software

Lead Research Assistant, Scientists' Discovery Room Lab, Harvard School of Engineering & Applied Sciences, Cambridge, MA (May 2012 – Nov 2012)
Principal Investigator: Chia Shen
Managed research assistants on an NSF-funded study for the Life on Earth Project
Assisted with recruitment of dyads at the Harvard Museum of Natural History
Ran studies on a digital touchtable; transcribed and coded data

Research Assistant, Lab for Developmental Studies, Harvard University, Cambridge, MA (Sept 2011 – Dec 2011)
Principal Investigators: Susan Carey, Elizabeth Spelke
Assisted with recruitment, experimental setup, and data collection

Clinical Research Interviewer, Mood & Anxiety Disorders Program, Dept. of Psychiatry & Behavioral Sciences, Emory University School of Medicine, Atlanta, GA (Dec 2009 – Aug 2011)
Principal Investigators: Helen S. Mayberg, Edward Craighead
Screened participants for NIH-funded clinical trials using the SCID-IV interview; implemented Hamilton Depression/Anxiety scales & MADRS; presented cases to PIs
Administered IQ tests and neuropsychological assessments
Measured physiological arousal for PTSD studies with ECG, EMG, & GSR equipment
Coordinated Corticotropin-Releasing Hormone Stress Test; aliquoted blood samples
Organized and ran advertising strategies targeting specific clinical populations

Supervisor, Carlson Science & Engineering Library, University of Rochester, Rochester, NY (June 2007 – May 2009)
Supervised circulation desk employees; assisted students with research queries

Resident Advisor, University of Rochester, Rochester, NY (Aug 2006 – May 2009)
Mentored residents and assisted with conflict resolution/ mediation

Coordinated meetings, programs, and events; directed publicity and constructed budget proposals; managed the community newsletter

Awards: M.V.P. Distinction for service to the staff and residential community

Administrative Aide, Dept. of Neurosurgery, **Strong Memorial Hospital**, Rochester, NY (May 2007 – Aug 2007)

Completed medical forms for the Neurosurgery Clinic; delivered MRIs to Radiology; filed patient records

Education

Master of Mind, Brain, & Education, GSE, **Harvard University** (2012)

Bachelor of Science, College of Arts, Sciences & Engineering, **University of Rochester** (2009)

Conferences & Presentations

Khan, N.Y. (September, 2019). *How to Build an App for Everyone*. Speaker at NSSpain, Logroño, Spain. [Video](#).

Khan, N.Y. (September, 2019). *Accessibility in iOS 13*. Speaker at CocoaHeads Boston, Massachusetts Institute of Technology, Cambridge, MA.

Khan, N.Y. (October, 2018). *Evaluating React Native*. Speaker at CocoaHeads Boston, Massachusetts Institute of Technology, Cambridge, MA.

Khan, N.Y. (March, 2016). *Swift Compiler Integration in LLDB*. Speaker at the try! Swift conference in Tokyo, Japan.

Khan, N.Y. (April, 2015). *Fun with Playgrounds: Delving into Xcode's XCPlayground Framework*. Speaker at CocoaConf DC, Herndon, VA.

Khan, N.Y. (November, 2014). *Xcode Playgrounds*. Speaker at CocoaConf Boston, MA.

Khan, N.Y. (October, 2014). *All Things Swift*. Speaker at the Providence Mobile Development Group, Providence, RI.

Khan, N.Y. (March, 2014). *Introduction to iOS Development*. Mentor and speaker at Pearl Hacks, University of North Carolina at Chapel Hill, NC.

Khan, N.Y. (December, 2012). *Mental time travel for success: Applications of simulation research to product development*. Presented at the Schacter Memory Lab, William James Hall, Harvard University, Cambridge, MA.

Khan, N.Y., Monti, S., & Rinko-Gay, C. (May, 2012). *Specific Language Impairment: On frameworks and equifinality*. Presented at the Developmental Disabilities lecture series, William James Hall, Harvard University, Cambridge, MA.

Khan, N.Y., Nacheman, J., & Lindsey, M. (May, 2009). *Effect of cross-language English-Spanish syntactic priming*. Paper presented at the lecture, Language Use and Understanding, University of Rochester, Rochester, NY.

Khan, N.Y. (February, 2009). *Statistical learning by 8-month old infants*. Presented at the Brain and Cognitive Sciences Seminar, University of Rochester, Rochester, NY.

Khan, N.Y., Kramer, J., & Edlen, T. (December, 2008). *Age and training effect on categorization of novel nouns in preschoolers*. Paper presented at the Lab for Development and Learning, University of Rochester, Rochester, NY.

Khan, N. Y. (April, 2007). *What code-breaking, three-pointers, and phone numbers have in common: The media's portrayal of autism, its effects, and methods of prevention*. Paper presented at the 2007 Undergraduate Research Exposition, Rochester, NY.

Research Experience

Schacter Memory Lab, Harvard University (2012 – 2013) *
Principal Investigators: Daniel L. Schacter, Karl K. Szpunar
Advisor: Karl K. Szpunar

Scientists' Discovery Room Lab, Harvard School of Engineering & Applied Sciences (2012)*
Principal Investigator: Chia Shen
Advisor: Brenda Caldwell Phillips

Lab for Developmental Studies, Harvard University (2011 – 2012) *
Principal Investigators: Susan Carey, Elizabeth Spelke
Advisor: Adena Schachner

Mood & Anxiety Disorders Program, Emory University School of Medicine (2009 – 2011) *
Principal Investigators: Helen S. Mayberg, Edward Craighead
Advisor: Boadie Dunlop

Moral Cognition & Development Lab, Emory University (2009 – 2011)
Principal Investigator: John Snarey

Social Development Research Group, University of Rochester (2006 – 2008)
Principal Investigator: Judith Smetana
Advisor: Clare E. Conry-Murray

*See *Professional Experience* for further details.

Publications

Khan, N.Y. (2019). Two new settings to support in your iOS 13 apps. *Medium*.

Khan, N.Y. (2018). Before submitting your iOS 12 apps to the App Store, double check your plist. *Medium*.

Khan, N.Y. (2018). How to cleanly hide a UITableView Section. *Medium*.

Khan, N.Y. (2018). iOS push hack. *Medium*.

Szpunar, K.K., **Khan, N.Y.**, & Schacter, D.L. (2013). Interpolated memory tests reduce mind wandering and improve learning of online lectures. *Proceedings of the National Academy of Sciences*, 110(16), 6313-6317.

Khan, N.Y. Mental time travel as ‘usable knowledge’: Relating research in episodic cognition to educational practice (In prep).

Khan, N.Y., Greene, M., & Chen, S. (2009). *Conquering Vocab*. Decatur, GA: A Little Life Lesson’s Book. Overview: *Conquering Vocab* applies research in the cognitive sciences to lexical comprehension & memory by focusing on attention, encoding, and context.

Teaching & Mentorship

Volunteer, Hack.Diversity, Boston, MA (2019)

Independent Instructor, Swift Video Tutorials (2014 – 2015)

Mentor, Introduction to iOS Development at Pearl Hacks, University of North Carolina at Chapel Hill, NC (2014)

Tutor, Kumon Atlanta-Lavista Learning Center, Atlanta, GA (2010 – 2011)

Teaching Assistant, Brain & Cognitive Sciences Department, **University of Rochester**, Rochester, NY (2009)

Instructors: Mohinish Shukla, Katie Carbary, Advisor: Richard Aslin

Projects & Startups

Founder, Boston App Studio, LLC, DBA Caselet, LLC (2017)

Founder, Arrow, a social dating app supported by the Startup Worcester accelerator program (2017)

Developer, ThoughtCloud+, an iPhone application to promote stress reduction through mindfulness-based practice (2013)

Founder, Pink Chalk Labs, an iOS for building apps in the mental health space (2013)

Co-Founder, Active Minds, **University of Rochester** (2008 - 2009)

A student-run mental health awareness, education, and advocacy organization

Awards: 2012 Outstanding Student Group Award, awarded by the New York State College Health Association (NYSCHA)

Technical Skills

Languages: Objective-C (primary), Swift (primary), Java, Ruby, HTML, CSS, JavaScript

Software: Xcode, Instruments, E-prime, Adobe Lightroom, Apple Image Editing and iMovie

Tools: Git Source Control, Apple Developer Tools, Jira, Crucible, Bug Tracking and QA Systems