# rachit kataria

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# work experience

Facebook - Incoming Software Engineering Intern

09/2018 - 11/2018

• Working on new products at Facebook's New York headquarters

Shape Security - Incoming Software Engineering Intern

05/2018 - 08/2018

· Working on machine learning and AI applications for cybersecurity

Facebook - Software Engineering Intern

05/2017 - 08/2017

- Spearheaded development of a new text mode in iOS Facebook Stories and added client-side native rendering for crisper quality
- Launched friend and page tagging on Facebook Stories, making the product more interactive and dynamic
- Implemented an internal tool to automate QA efforts and built an improved testing flow to speed up development for cross-functional teams

**Apple** - Software Engineering Intern

05/2016 - 08/2016

- Independently designed and implemented a full-stack iOS sample code app for Apple's Developer portal to showcase existing and new features in CloudKit's APIs such as iCloud Sharing for iOS 10
- During the development process, I discovered and reported many showstopper bugs in various core modules
  across Apple's software stack and helped to refine CloudKit APIs which were publicly released in iOS 10

**USC ML and Data Mining Research Group** - Undergraduate Research Fellow

11/2017 - Present

 Applying multiple deep learning survival models and data processing techniques to assess patient survival time and risk of death from prostate cancer

**USC Department of Computer Science** - Course Producer

08/2016 - 12/2017

- Teaching assistant for CSCI 104: Data Structures and Object Oriented Design and CSCI 103: Intro to Programming
- Mentored students on essential OOP concepts (polymorphism, abstraction, concurrency, inheritance), core
  data structures (linked lists, trees, queues, hash tables), and useful software tools (Github, gdb, Google Test)

# projects

### Kaggle Data Science Bowl (USC CAIS++)

04/2018

Using Python 3, Keras, and Tensorflow, my team and I implemented a Mask-RCNN model that can detect
nuclei in cell imagery. Model detection accuracy performed in the top 10% of all submissions

### Stronger - Helping Opiate Addicts in Their Moments of Crisis (LA Hacks)

04/2018

 Using Swift 4 and Google Cloud's Vision API, I implemented the speech-to-text recognition and cognitive behavioral therapy features of an iOS app that helps addicts in the moment of relapse

### Claire Bot - Impacting Homeless Youth through Artificial Intelligence (USC TrojanHacks) 03/2017

Using API.AI's natural language processing functionality with the Facebook Messenger platform, I created a
chatbot that provides resources for homeless youth on the go

### Quark - Interactive Video Manipulation and Audio Playback Control (USC HackSC) 11/2015

 Using Swift Core Image and AVKit, I implemented video and image filtering for a multiplayer Apple TV app which allows for real-time AV manipulation using iPhone touch gestures and QR code recognition

# leadership

#### HackSC - USC's Premier Hackathon (800+ attendees)

08/2016 - 05/2018

• Director and Head of Logistics

### Spark SC - USC's Premier Student-led Entrepreneurship Initiative

08/2015 - Present

- Startup Career Fair Advisor (Aug. 2018 Dec. 2018)
- USC Hackers Lead (Aug. 2016 May 2017)
- Startup Career Fair Lead (Jan. 2016 May 2016)
- Safari Bay Trip Lead (Jan. 2016 May 2016 )
- Hack "Knights" Program Lead (Aug. 2015 Dec. 2015)

# skills

Programming Languages: C/C++, Python, Swift, Objective-C++, Java, HTML / CSS

Operating Systems: iOS, macOS, Windows

Tools: Xcode, Spyder, GitHub, Eclipse IDE, Visual Studio Code

### education

### University of Southern California, Viterbi School of Engineering

B.S. Computer Science 2019 GPA: 3.95 / 4.00

Lynbrook High School

High School Diploma 2015 Valedictorian, GPA: 4.00 / 4.00

# awards

#### **KPCB** Engineering Fellow

05/2018

Top 1% of 2,500 engineering applicants nationwide selected to join a KPCB portfolio startup, receive mentorship from industry luminaries, and form a close family of talented peers

### LA Hacks - Stronger

04/2018

Placed 2nd place at the KEEN Innovation & Pitch Competition and awarded \$800 to pursue the project

#### TrojanHacks - Claire Bot

03/2017

Placed in the Top 3 out of all hacks presented at ACM's TrojanHacks 2.0  $\,$ 

### Apple App Store Marketing Challenge 08/2016

Placed 2nd out of 30 intern teams - pitched an innovative product feature idea to Apple's Senior VP of Worldwide Marketing and his

executive team

HackSC - Quark

"Best iOS or OS X App" - Apple
"Best Use of Visual Media" - Disney

"Best First Time Hackathon Hack" - Hack SC

#### **USC Trustee Scholar**

06/2015

05/2016

05/2015

Full tuition merit scholarship awarded to the top 1% of incoming freshman

### USC Academic Achievement Award

Provides a tuition benefit to students with a GPA of at least 3.75 to

pursue multiple undergraduate degree objective

# Dean's List Scholar

12/2015

Every semester since Fall 2015

### USC Viterbi Undergraduate Merit Research Fellow

06/2015

Research grant of \$2500 per year awarded to the top 40 incoming Viterbi engineers

### USC W.V.T Rusch Undergraduate Engineering Honors Program

06/2015

Top 10% of incoming freshman engineers

#### National Merit Scholar

06/2015

Awarded by the National Merit Scholarship Corporation to 8,000 exceptional high school students out of over 1.5 million applicants nationwide