

# Sahil Gandhi

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## EDUCATION

### University of California, Los Angeles

M.S. Computer Science; GPA: 4.00

Apr 2019 - Jun 2020

B.S. Computer Science and Engineering; GPA: 3.87 (*Magna Cum Laude*)

Sep 2015 - Mar 2019

**Selected Coursework:** Big Data Systems (*IP*), Computer Security (*IP*), Parallel and Distributed Computing, Data Structures, Algorithms, Operating Systems, Computer Networking, Databases, Machine Learning, Machine Learning in Hardware, Quantum Programming, Embedded Networking Systems, Autonomous Vehicle Communication

## SKILLS

**Programming Languages:** Java, Python, C++, C, C#, Javascript, Verilog, Bash, Hack, Scala

**Technologies:** Ansible, CUDA/OpenCL, OpenTSDB, RocksDB, Protobuf, Docker, Jenkins, Git, Mercurial, UNIX

## WORK EXPERIENCE

### Microsoft, *Software Engineering Intern*

Jun 2019 - Sep 2019

- Revamped logging infrastructure in distributed build tool to use ProtoBuf schemas for forward/backward compatibility
- Implemented a caching feature for important log data in RocksDB to speed up log file analyzers by more than 500%, allowing software engineers in Windows and Office to gain insights to optimize their distributed builds further

### UCLA ScAi Lab, *Undergraduate/Graduate Researcher*

Jan 2018 - Jun 2019

- Researched under Dr. Zaniolo and Ariyam Das on real-time streaming DBs, NLP Datalog parsers, and graph visualizations
- Built an n-ary And-Or tree parser for faster querying, an NLP tool to parse Datalog and Python profilers for HAT trees

### Facebook, *Software Engineering Intern*

Jun 2018 - Sep 2018

- Merged functionalities of several testing tools to enable automated re-testing and move to the new CI/CT pipeline
- Optimized the DB design to speed up queries and the validation portal UI by more than 50%, and automated the creation and updates of test results: saving the organization over \$300,000 a year in man-hours

### ViaSat, *Software Engineering Intern*

Jun 2017 - Sep 2017

- Created infrastructure using Docker and Apache Flume to grab data from airplane routers, and automated it using Ansible
- Processed data using Scala, stored it in OpenTSDB, and graphed it in Grafana to present to business executives

### Reltio, *Software Engineering Intern*

Jun 2016 - Aug 2016

- Developed and modified API features (Java, Cassandra, Elasticsearch) and fixed major bugs in code base before releases
- Gained a critical understanding of the PaaS model and used Git extensively to collaborate with developers around the world

### SmartMonitor and IntelliVision, *Software and Product Development Intern*

Jun 2014 - Aug 2014

- Concurrently interned at two companies: created an internal product website for IntelliVision and designed/analyzed a prototype medical patch for SmartMonitor to pitch to larger bio-tech firms like Genentech

## PROJECTS

**Trivia Bot:** Created an automated python bot to tackle online trivia games like HQ Trivia, Beat the Q, and more

**Micromouse:** Designed the PCB and programmed the MCU for an award winning autonomous maze solving robot

**Free Throw Classifier:** Created a classifier for basketball free throws using three Hexiwears mounted on a user's arm

**Bruin Dining Backend:** Published an API endpoint that allows developers to grab information about UCLA dining items

**C.A.R.M.:** Published a Chrome extension that lets users to message anyone else on the same website at any time

**REM.my:** Published an Android application that optimizes the sleep cycle for those with dynamic sleep schedules

## AWARDS

**California Micromouse Comp (Camm):** 2nd place in 2018 and 1st place in 2019

May 2018, May 2019

**All American Micromouse Comp (AAMC):** 2nd place in 2018 and 2019

May 2018, May 2019

**Idea Hacks (Hardware Hackathon) 2018:** Top 10 overall amongst 40 teams

Jan 2018

**UC San Diego Hacks 2017:** 1st place in the Genome Link Category

Oct 2017

**UC San Diego Hacks 2016:** 1st place in the ViaSat Category

Oct 2016

## ACTIVITIES

**Teaching Assistant at UCLA CS:** CS M51a - Logic Design of Digital Systems (Fall 2019)

2019

**UCLA IEEE:** PM ('18-'19), Workshops Manager ('17-'18), OPS Lead ('16-'17), Member ('15-'20)

2015-2020

**UCLA Eta Kappa Nu (HKN):** Membership Chair ('17-'18), Member ('17-'20)

2017-2020

**UCLA Tau Beta Pi (TBP):** Club Liaison ('17-'19), Member ('17-'20)

2017-2020

**UCLA Upsilon Pi Epsilon (UPE):** Member ('16-'20)

2016-2020

**UCLA Supermileage Vehicle - Electric Vehicle:** E.V. Team Lead ('16-'17), Member ('15-'17)

2015-2017

## PUBLICATIONS

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<b>Teaching Assistant at UCLA CS:</b> CS M51a - Logic Design of Digital Systems (Fall 2019)	<b>2019</b>
<b>UCLA IEEE:</b> PM ('18-'19), Workshops Manager ('17-'18), OPS Lead ('16-'17), Member ('15-'20)	<b>2015-2020</b>
<b>UCLA Eta Kappa Nu (HKN):</b> Membership Chair ('17-'18), Member ('17-'20)	<b>2017-2020</b>
<b>UCLA Tau Beta Pi (TBP):</b> Club Liaison ('17-'19), Member ('17-'20)	<b>2017-2020</b>
<b>UCLA Upsilon Pi Epsilon (UPE):</b> Member ('16-'20)	<b>2016-2020</b>
<b>UCLA Supermileage Vehicle - Electric Vehicle:</b> E.V. Team Lead ('16-'17), Member ('15-'17)	<b>2015-2017</b>