

Sahil Gandhi

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EDUCATION

University of California, Los Angeles

M.S. Computer Science – (*Specialization: Distributed and Big Data Systems*)

Apr 2019 - Mar 2020

B.S. Computer Science and Electrical Engineering – (*Summa Cum Laude*)

Sep 2015 - Mar 2019

SKILLS

Programming Languages: Java, Golang, Python, Bash, JavaScript

Frameworks and Technologies: Kubernetes, Docker, Protobuf, Vert.x, Helm, Vault, Terraform, AWS, GCP, AZURE, SQL, PostgreSQL, OpenTelemetry, OpenCensus, DataDog, NewRelic, UNIX, React, RocksDB, Git, Mercurial

WORK EXPERIENCE

Confluent

Senior Software Engineer II - Compute Platform and Capacity

June 2023 - Present

- Promoted Vertical Pod Autoscaler (VPA) adoption, slashing Kubernetes cluster spend by \$10k+/mo
- Automated node type migrations for Kafka, yielding savings of \$2m+/yr and improving end-to-end latency by 20%
- Designed interface to transfer Flink compute pools between Kubernetes, boosting utilization through pool colocation and mitigating disaster recovery for Kubernetes failures
- Designed a multi-regional deployment engine to support the next generation of the regional Confluent Kora Engine

Senior Software Engineer - Control Plane Fleet Management

June 2022 - June 2023

Software Engineer II - Control Plane Fleet Management

June 2021 - June 2022

Software Engineer - Control Plane Fleet Management

June 2020 - June 2021

- Founding engineer on the Fleet Management team that designs scalable solutions for day 1+ operations on clusters
- Spearheaded the design of a new Java-based workflow engine, incorporating the Vert.x framework and Datalog monitor APIs; resulting in a 95% reduction in incident rate and reduced the roll time for the entire fleet from several months to 2 days
- Generalized the workflow engine via a well-defined GRPC contract for seamless compatibility with any Confluent cluster and any operations, empowering all cloud teams to leverage maximum parallelism and continuous monitoring
- Streamlined microservice deployment through the design and development of a new cloud-agnostic Golang-based Kubernetes deployment engine; eliminating manual Helm deployments, and scaling from 30 to 10000+ deployments/day
- Developed a unified view of all cluster information through a Golang and ReactJS-based microservice + UI; eliminating manual database commands and reducing manual information stitching from multiple sources
- Mentored 5 new employees and interviewed numerous candidates to foster a positive and inclusive work environment

Microsoft, Software Engineering Intern - Microsoft Research (BuildXL)

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 between 5x and 200x, 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 - Release To Production Team

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 \$300k/yr a year in man-hours

PROJECTS AND OPEN SOURCE

Trivia Bot: Created an automated bot to tackle online trivia games like HQ Trivia, BTQ, and more (Python, Flask, JavaScript)

Micromouse: Designed the PCB and programmed the MCU for an autonomous maze solving robot - (C, C++, Autodesk Eagle)

Free Throw Classifier: Created a classifier for basketball shots using 3 Hexiwears mounted on a user's arm - (Python, C++)

C.A.R.M.: Created a Chrome extension that lets users instantly message anyone else on the same website - (JavaScript, MQTT)

AWARDS

California Micromouse Comp (CAMP): 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

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

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