

Swapnil Patel

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EXPERIENCE

Intel Corporation | Software Development Engineer

04/06/2019 - Present

- Extend and create a set of customer-consumable tools used for visibility into system state.
- Design, develop, debug & test datacenter system software with C++, used to debug system issues.
- Setup process for software toolkit package releases and automation pipeline for dev and release validation.

Intel Corporation | Graduate Technical intern

01/14/2019 - 12/13/2019

- Characterization study of FaaS & Docker for large scaling workloads, TMAM & root-cause analysis.
- Owned and developed container catalog to showcase value of internal tool containers for emerging memory & storage products.

Aubergine solutions Pvt Ltd | Software engineer

08/20/2016 - 06/30/2017

- Developed and designed backend apis with Django REST framework, for Cubii - a smart elliptical trainer.
- Developed log monitoring system for intrusion detection with ELK.

PROJECTS

Silicon Health Check - Intel | Software development

Apr 2020- Present

A part of Intel's Data Center software, this framework provides a workflow interface to manage/run internal tools.

- Developed & validated multiple features including logging, workflow language and report generation.

Newt- Function as service with Cloud IDE | Software development

May 2018-Dec 2019

Function as a service platform for developers with Cloud IDE for one place development and resource management.

- Architected & developed backend for FaaS framework using docker sdk to create function skeleton, provision isolated environment -Cloud IDE for each function. Developed apis to manage and scale workloads.

Res-Q Android application | Backend development

Aug 2016-June 2017

Queue management app for restaurants to help managers efficiently synchronize and help predict wait times.

- Redesigned backend communication between frontend clients using websockets instead of polling apis, implementing event driven APIs. Decreased server b/w utilization, sync latency to 6x.

TECHNICAL SKILLS

- **Performance & root-cause analysis:**
 - Developed framework to benchmark large scale performance for tools and application stack.
 - Used *Linux perf, Intel Vtune, NUMA* data to perform in-depth & TMAM analysis of workload processes.
 - Used machine learning models on perf data to plot and extrapolate potential bottlenecks.
- **Distributed Cloud development and System design:**
 - REST API development using *Django, Flask framework*, Web frontend with Reactjs.
 - Containerize & orchestrate web application workload using *Docker & Kubernetes, AWS SDK*.
 - Setup database cluster with replication & recovery management. [*Postgresql, mysql*]
- **Exposure:** Java, C++, Python, Elasticsearch, Apache Kafka, Tensorflow, Keras, Rabbitmq, Nginx.

EDUCATION

Master of Science- Computer Science, California State University- Sacramento, CA, USA

Aug 2017- Dec 2019

Bachelor of Technology- Computer Engineering, Dharmsinh Desai University- Nadiad, India

July 2012- May 2016

COMMUNITY

Speaker, Google Devfest 2017, GDG Sacramento **ACM ICPC 2018 Regionals** - rank 4/20 N. California Berkeley D2 site,

Organizer, Sacramento Web & Mobile Developers