

Senior software engineer whose amalgam of engineering (data science, cloud computing, cyberphysical systems, artificial intelligence, and machine learning), business, finance, and communication skills has powered successful leadership at companies like Amazon and Microsoft.

Striving for MBA to broaden horizons and maximize impact on the world by synthesizing engineering and business expertise with leadership, management, and networking skills.



# **EXPERIENCE**

#### Software Development Engineer II

Amazon - Alexa Al Engineering | Seattle, WA, USA

04/2018 - Present

- Handpicked to lead Alexa Engine team within 3 months of joining.
- Pioneered batching/clustering approach to Alexa Engine data mining/modeling, *improving accuracy by 40*% and saving \$40 million per year.
- Launched rapid development/deployment platform to streamline new customer onboarding time from 2 weeks to 15 minutes.
- Managed team's operational excellence by establishing coding standards, refining metrics and alarms, identifying security gaps, and slashing average weekly issue count from 40 to 10.
- · Mentored team of 10 and fostered their advancement from entry-level engineers.
- Reengineered Alexa app's user registration flow, cutting Christmas peak customer issues by 10x.
- Published hardware requirements for Prime Day, Black Friday, and Christmas 2018 and 2019.

#### Senior Data Engineer

11/2016 - 03/2018

Susquehanna International Group (SIG) - Options Trading Division | Bala Cynwyd, PA, USA

- Promoted from Financial Engineer in Options Trading Division (>\$1 billion assets) with 6 months.
- Established real-time hardware asset tracking and distribution system to mitigate inter-team coordination issues via efficient automated scaling, which eliminated 25% excess hardware and saved \$5 million.
- Developed real-time reporting mechanism on the company's market-making transactions to ensure FINRA compliance, curtailing monthly violations rate from 48% to 3%.
- Programmed innovative trading strategy optimizations AI to boost traders' performance by 7%.

#### Software Engineer

03/2015 - 10/2016

Microsoft - Operating Systems Group | Redmond, WA, USA

- Established Windows Phone 10 Mail app's power consumption targets and achieved 4x reduction from Windows Phone 8 Mail app's levels.
- Analyzed telemetry and user feedback to hone Windows Mail App (e.g., configured default auto-sync time to 15 minutes).
- Evaluated data storage and analytics solutions for telemetry and onboarded onto Microsoft Azure Databricks, which made it possible to generate weekly service health reports.
- Constructed Cortana's sentiment analysis engine to offer word suggestions for emails/documents and to glean real-time insights on Cortana's overall accuracy.
- Resolved guest network WiFi issues on Windows 10 early preview.

## **Software Engineering Intern**

05/2014 - 08/2014

Amazon Web Services (AWS) - Elastic Block Store | Seattle, WA, USA

Combined 6 teams' logging systems into single common logger, achieving 15% speed-up and halving debugging/troubleshooting time from 6 hours to 3 hours.

## Full-Stack Web Developer Intern

12/2013 - 02/2014

LeanFM Technologies, LLC | Pittsburgh, PA, USA

Leveraged big-data analytics and Internet-of-Things for smarter, leaner building management.

# Web Applications Course Developer and Assistant

05/2013 - 12/2014

Carnegie Mellon University | Pittsburgh, PA, USA

Redesigned course with professors and coached 105+ students.

## **National Science Foundation Researcher**

01/2013 - 08/2013

Carnegie Mellon University | Pittsburgh, PA, USA

Consolidated multiple individual bacterial circuit simulators into a single unified platform.



# NOTEWORTHY PROJECTS

## **Drone-Megaddon**

Extended Google Maps to track and manage a fleet of drones in real-time.

## My Stock Exchange

Authored stock exchange simulator, with AI to manage liquidity and produce 1-week projections.

## **Sentiment Analysis Engine**

Built sentiment analysis engine from scratch and applied it to news feeds to gauge market expectations.

# **Sairam Krishnan**

Scholar and Business-Minded Engineer

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- github.com/SaiWebApps
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#### **EDUCATION**

MS in Electrical and Computer Engineering Carnegie Mellon University, 08/2014 - 12/2014

**BS in Electrical and Computer Engineering**Carnegie Mellon University, 2010 - 2014

Minor in Business Administration
Carnegie Mellon University, 2010 - 2014

#### **AE LANGUAGES**

English & Tamil (Native)

Spanish (Professional)

Mandarin Chinese (Intermediate)

French & Italian & Sanskrit (Beginner)

# **SKILLS**

Accounting (Financial and Managerial)

Cloud Computing (Certified for AWS, Azure, and Google Cloud)

Embedded Systems (Drones)

Artificial Intelligence and Machine Learning

Software Development (Agile, Waterfall, Pair Programming)

Software Security (Amazon Security Certifier)

Teamwork and Time-Management

## **AWARDS AND CERTIFICATIONS**

National AP Scholar

CMU CIT Dean's List (Spring 2012, Spring 2013, Fall 2013)

Amazon AWS Certified Solutions Architect

Microsoft Azure Al Engineer

Google Cloud Machine Learning Engineer
Six Sigma Green Belt

## **7** ADDITIONAL ACTIVITIES

CMU Alumni Association (Volunteer)

Amazon Leadership Development Program (Mentor, SDE Bootcamp Trainer)

Amazon Bar-Raiser (Security/Privacy Certifier Operations Samurai)

Amazon Connect@Seattle Club (Volunteer)

Microsoft Maker Club (Volunteer)

SIG Inner-City School Mentors (Volunteer)

Toastmasters International (Member)

Portfolio Manager (~\$500K assets)

Passionate Student (LinkedIn Learning, Coursera, and Udemy Certifications)

Avid Numismatist and Historian