Sairam Krishnan

Scholar and Business-Minded Engineer

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👤 SUMMARY

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 AI 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
Susquehanna International Group (SIG) - Options Trading Division | Bala Cynwyd, PA, USA
11/2016 - 03/2018

- 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
Microsoft - Operating Systems Group | Redmond, WA, USA
03/2015 - 10/2016

- 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
Amazon Web Services (AWS) - Elastic Block Store | Seattle, WA, USA
05/2014 - 08/2014

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
LeanFM Technologies, LLC | Pittsburgh, PA, USA
12/2013 - 02/2014

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

Web Applications Course Developer and Assistant
Carnegie Mellon University | Pittsburgh, PA, USA
05/2013 - 12/2014

Redesigned course with professors and coached 105+ students.

National Science Foundation Researcher
Carnegie Mellon University | Pittsburgh, PA, USA
01/2013 - 08/2013

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.

🎓 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

🔤 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 Machine Learning Engineer

Google Cloud Machine Learning Engineer

Six Sigma Green Belt

⚡ 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