# Surya Keswani

Senior Software Engineer specializing in global infrastructure and reliability.

in suryakeswani 🔘 sukeswan 🔇 suryakeswani.ai

#### WORK EXPERIENCE

Havery 🔀

2025 - Present San Francisco, CA

Senior Software Engineer

• AI Infrastructure

TikTok 🔼 2024 - 2025

Senior Software Engineer

San Jose, CA

- Global Data Infrastructure & Site Reliability
- US Classic Storage lead managing 7EiB of TikTok data globally
- Leading project Alpha a migration project that will save the company \$257M+ in cloud costs annually
- In the top 9% of TikTok oncall personnel working with 400+ customers to solve critical data-infra issues

Amazon 🔀

Software Engineer - AWS EBS

2022 - 2024Sunnyvale, CA

- Played key roles in new feature launches, including the new C7g(n) EC2 instance
- Developed new cryptographic features that increase performance for AWS customers
- Managed & improved CI/CD infra, increasing successful deployments to the worldwide fleet of 7M servers
- Participated in oncall, managed customer tickets, investigated & remediated critical software defects
- Built new developer tools for increased confidence in new commits, including automated code coverage tools & new code testing features

## Cyber Security Consultant

2020 - 2022

Self-employed Santa Cruz, CA

- Built technical cybersecurity playbooks for a private equity firm & its portfolio companies
- Worked with security executives to author a book covering the largest data breaches in history + executive strategy for information security
- Advised a detailed strategy for network, application, cloud, & data security

# Augmented Design Laboratory

2019 - 2020

Research Intern Santa Cruz, CA

- Worked with Professor Jim Whitehead conducting research for Ford Motors
- Developed a detailed satellite image dataset for image segmentation
- Built optimized clustering model to analyze road infrastructure dataset
- Contributions used in creating testing infrastructure for autonomous vehicles

#### **EDUCATION**

# University of California, Santa Cruz 🔀

M.S Computer Science w/ Thesis

Santa Cruz, CA

### University of California, Santa Cruz 🔀

B.S Computer Science w/ Thesis, Cum Laude & Honors in the Major

Santa Cruz, CA

# Stanford University Online

Advanced Computer Security Certificate

Online

#### RESEARCH & PROJECTS

## Improving Tree-Based Oblivious RAMs

- Studied state-of-the-art papers in the area of oblivious computation under Professor Ioannis Demertzis
- TreeORAM, PathORAM, RingORAM, & CircuitORAM are all multi-threaded for improved performance

# Cryptographically Secure Messaging Interface

- Built cryptographically secure messaging platform
- Messages are hashed, digitally signed, & encrypted using SHA3-512, NIST P-521 Elliptic Curve & Simon Block Cipher
- Messages stored in text file in AWS S3 bucket for easy communication with another party