

Siddarth Senthilkumar

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U.S. Citizen

EXPERIENCE

Google

— Security Engineer

New York, NY

November 2023 - Present

- Creating Terraform blueprints & architecture guides to document secure GCP practices.
- Engaging with customers through workshops to share secure design patterns.
- Presenting relevant topics to CISOs at biannual Customer Advisory Board meetings.

Brex

— Application Security Engineer

New York, NY

December 2021 - November 2023

- Identified flaws in authorization, input validation, and other appsec concerns through design doc review.
- Pentested GraphQL APIs, browser extensions, OAuth flows, and vendor integrations.
- Designed & coded a worker-leader scanning infrastructure in Python to run Masscan, Nmap, & Nuclei.
- Communicated with 3rd party researchers to triage & ticket findings from bug bounty program.
- Developed and deployed vuln management and attack surface management tools.
- Wrote Semgrep rules to automatically catch security bugs during pull requests.

Microsoft

— Software Engineer

Redmond, WA

June 2020 - December 2021

- Designed attestation primitives with Intel, AMD, & OpenEnclave for Azure Confidential Compute.
- Built Azure service to cache Intel SGX collateral enabling Microsoft to control update timelines.
- Developed features for Azure host agent to securely refresh expired vTPM certificates.
- Designed protocol for unreliable one-way data transfer to Air-Gapped clouds with no internet access.
- Worked with Azure Attestation to balance timely security updates against inconveniences to customers.

Cruise Automation

— Application Security Intern

San Francisco, CA

June 2019 - September 2019

- Created a visualization tool to show impact of GCP IAM issues that allow privesc between projects.
- Created Docker images for vuln scanners to asynchronously alert the security team on issues.
- Performed security assessments; identified unauthed endpoints and faulty input validation.
- Introduced automated AuthZ testing for application endpoints to save time on future assessments.

Booz Allen Hamilton

— Reverse Engineering Consultant

Annapolis Junction, MD

January 2018 - May 2018

- Researched vulnerabilities in SCADA systems by analyzing firmware updates for the QNX RTOS.
- Reverse engineered FFS3 filesystem and wrote decoder to extract all files and directories from an image.
- Analyzed PowerPC ELF's to exploit weak client-side authentication routines.

EDUCATION

University of California, Santa Barbara

M.S. in Computer Science, GPA: 3.97

Santa Barbara, CA

September 2018 - June 2020

Georgia Institute of Technology

B.S. in Computer Science, GPA: 3.84

Atlanta, GA

August 2014 - December 2017

SKILLS

Languages

Python, C#, C, Java, HTML/CSS. < 6 Months: Scala, C++, Kotlin, Node.js

Frameworks

Flask, React, Express, Bootstrap, ASP.NET MVC, OpenEnclave, JNI

Tools

Kubernetes, Docker, Vagrant, Linux, AWS, Azure, Vim, Git, gdb, IDA Pro, Burp Suite