

# Siddarth Senthilkumar

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U.S. Citizen

## EDUCATION

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### University of California, Santa Barbara

M.S. in Computer Science, GPA: 3.95

Santa Barbara, CA

*September 2018 - Present*

### Georgia Institute of Technology

B.S. in Computer Science, GPA: 3.84

Atlanta, GA

*August 2014 - December 2017*

## EXPERIENCE

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### 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.

### Cisco Systems, Inc.

— Software Build Intern

San Jose, CA

*May 2018 - August 2018*

- Identified dependency issues affecting build quality for thousands of Cisco engineers around the world.
- Programatically fixed dependency issues by migrating gmake build to new build system called Ninja.
- Reduced parse times from 10 mins to 45 secs, projected savings \$500,000/month in dev hours for Cisco.

### 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.

— Malware Analysis Intern

*June 2017 - August 2017*

- Developed Python modules to automate malware analyst workflows via Phantom modules.
- Reverse engineered and wrote decoders to extract crypto-keys and protocol info from open malware.

## PROJECTS

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### Automatic JNI Crash Triaging

- Extending Java capabilities for UC Santa Barbara's open-source program analysis framework called "angr".
- Developing capabilities for crash triaging and guided fuzzing of Java applications that make JNI calls.

## AWARDS

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- **1st Place SB CTF** - Invoca, Bugcrowd, OWASP *February 2019*
- **1st Place UMD CTF** - University of Maryland, College Park *April 2018*
- **3rd Place Kaizen CTF** - Booz Allen Hamilton *June 2017*
- **13th Place CSAW CTF** - NYU Tandon *October 2015*

## SKILLS

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**Languages** Python, C, Java, Verilog, HTML/CSS. < 6 Months: Scala, C++, Kotlin, JavaScript  
**Frameworks** Flask, PyQt, Selenium, BeautifulSoup, Java Native Interface (JNI), Bootstrap, Materialize  
**Tools** Vagrant, Docker, Linux (Arch, Debian), Vim, Git, gdb, tmux, zsh, IDA Pro, Burp Suite