

ADITYA SALIGRAMA

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Computer science major at Stanford University with experience in security, systems, and machine learning

EDUCATION

Stanford University

Sep. 2020 – Jun. 2024

B.S. Candidate in Computer Science (Systems track) | GPA 3.91

Stanford, CA

- Coursework includes Cryptography, Computer and Network Security, Embedded OS, Compilers, Algorithms, ML

EXPERIENCE

I. Work experience

Software Engineering Intern at Lacework

Jun. 2022 – Sep. 2022 at San Jose, CA

- End-to-end virtualization of benchmarking system on Spark to speed up and simplify database usage vs. Snowflake
- Contributions to SQLGlue, an open-source SQL parser and transpiler

Engineering Intern at Uptycs

Nov. 2020 – Apr. 2021 at Waltham, MA

- Deployed production feature to osquery monitoring software to inspect and detect malware in Java packages
- Functionality helped detect and patch client software with Log4j vulnerabilities

Freelance Security Consultant

Jun. 2022 – Present

- Clients include Stanford startups; consultation on initial setup and ongoing security of tech stack

Research Science Institute Intern at Akamai Labs

Jun. 2019 – Aug. 2019 at Cambridge, MA

- Wrote, deployed realtime garbage collection monitoring system for Go language programs with per-thread detail

II. Teaching and leadership experience

Teaching Assistant, INTLPOL 268 Hack Lab at Stanford University

Sep. 2022 – Present at Stanford, CA

TA for Alex Stamos, Riana Pfefferkorn

- TA of 170+ student intro security course — lab design and GCP infra., instruction for two discussion sections (40 students)

Vice President and CCDC Linux Lead at Stanford Applied Cybersecurity

Jan. 2021 – Present at Stanford, CA

- Responsible for securing Linux systems against external penetration testing team in CCDC competition environment
- Leading security basics workshops for beginners and application security workshops for entrepreneurs
- Presented on vuln-finding in Firebase apps; contributed to Baserunner, an open-source Firebase exploration tool

III. Research experience

Research Assistant at Harvard University

Jun. 2017 – Present at Cambridge, MA

Supervised by Margo Seltzer, Cynthia Rudin

- Work on parallelizing CORELS, a machine learning algorithm that builds human-interpretable rule list models
- Co-first author of upcoming paper on systems optimizations that allow algorithm to scale to large datasets
- Implemented public web UI and R language API

Research Assistant at Stanford University

Apr. 2021 – Dec. 2021 at Stanford, CA

Research at Open Virtual Assistant Lab (OVAL) supervised by Monica Lam

- Work on virtual assistants to classify customer support requests with GPT-3 data augmentation

Research Assistant at MIT PRIMES

Jan. 2018 – Jun. 2020 at Cambridge, MA

Project I: Rust Concurrency Analysis | Supervised by Jon Gjengset, Frans Kaashoek

Jan. 2018 – Apr. 2019

- Developed set of fast, lock-free concurrent hashmaps for the Rust language with 140+ stars on GitHub

Project II: Adversarial Machine Learning | Supervised by Aleksander Madry

Jan. 2019 – Jun. 2020

SKILLS

- Languages:** C/C++, Python, Java, Go, Rust, JavaScript, SQL, ARM and x86 assembly, POSIX scripting (Bash)
- Frameworks:** Django, Node.js, Express.js, Hugo, Bootstrap
- Technologies and Developer Tools:** Git, Unix, Docker, Packer, AWS, GCP
- Security Tools and Techniques:** Burp Suite, Wireshark, Metasploit, Network Scanning, Security Research, Vulnerability Disclosure

PUBLICATIONS

A. Saligrama, G. Leclerc. Revisiting Ensembles in an Adversarial Context: Improving Natural Accuracy. *ICLR:TML'20*, 2020.

A. Saligrama. KnowBias: Detecting Political Polarity in Long Text Content. *AAAI:SAP'20*, 2020.

A. Saligrama. KnowBias: A Novel AI Method to Detect Polarity in Online Content. *arXiv:1905.00724*, 2019.

A. Saligrama, A. Shen, J. Gjengset. A Practical Analysis of Rust's Concurrency Story. *arXiv:1904.12210*, 2019.

N. Larus-Stone, E. Angelino, D. Alabi, M. Seltzer, V. Kaxiras, A. Saligrama, C. Rudin.

Systems Optimizations for Learning Certifiably Optimal Rule Lists. *SysML Conference*, 2018.

SELECTED AWARDS AND HONORS

- 3rd place team, National CCDC; 1st place team, Western Regional CCDC (2022)
- USA Computing Olympiad, Gold Division (2018 – 2020)