Anurag Baddam

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

BS in Electrical Engineering and Computer Science (EECS)
Minor in Statistics

Graduated May 2018 | Berkeley, CA

C. LEON KING HIGH SCHOOL

International Baccalaureate

Graduated May 2014 | Tampa, FL

LINKS

github.com/arb625
linkedin.com/in/anuragbaddam
https://arb625.github.io/

COURSEWORK

Database Systems (CS186)
Machine Learning (CS189)
Artificial Intelligence (CS188)
Algorithms (CS170)
Computer Security (CS161)
Operating Systems (CS162)
Data Structures (CS61B)
Computer Architecture (CS61C)
Probability (Stat 134)
Stochastic Processes (Stat 150)
Linear Modeling (Stat 151A)
Time Series (Stat 153)

SKILLS

PROGRAMMING

Python • Java • C • SQL • R •
Bash • Git • LaTeX

TECHNOLOGIES

Apache Spark • scikit-learn • Tensorflow •
Keras • Flask • Docker • Travis CI •
Redis • React • Node.js

ON CAMPUS

Institute of Electrical and Electronics Engineers (Industry Relations Officer) •
Code India (Founding Member) •
South Indian Society (Finance Director)

INTERESTS

Software Development • Data Science •
Machine Learning • Computer Security •
Entrepreneurship

EXPERIENCE

SALESFORCE | Software Engineer

Secure by Default team
July 2018 - Present | San Francisco, CA

- **Universal CRUD**: Strengthening entity access control by enforcing CRUD access checks on all Core entities. Implemented periodic entity usage metrics logging to obtain data. Working on implementing K-means clustering to identify default permission associations for various Salesforce user types.
- **Entity Access Violation Parser**: Discovered a range of entity-level privilege escalation vulnerabilities in Core. Enumerated best practices for access checks to avoid said vulnerabilities and developed a permissions parser (that can handle boolean algebra) to scan for non-compliance and file bugs against over 100 teams owning vulnerable entities. Released scanning tool to teams to verify security fixes locally.
- **Output Stream Scanner**: Created a Java Agent that used dynamic byte-rewriting to identify over 50 XSS vulnerabilities in the Core output stream.
- Fixed a **Denial-of-Service vulnerability** that exploited a slow parser for large numeric input in the application UI, cutting the latency by a factor of 20.
- Became a certified **Scrum Master**, oversee all Agile practices for the team.

SALESFORCE | Software Engineering Intern

Product Defense and DDOS teams
Summer 2017 | San Francisco, CA

- Added cross-origin referrer URL restrictions on all Salesforce Core domains.
- Added firewall rules for repeated IP addresses and high CPU usage that decreased the average amount of bad traffic allowed by Core by a factor of 10.

NOKIA HERE | Software Engineering Intern

Capture Systems and Technical Customer Support teams
Summer 2015, Summer 2016 | Berkeley, CA

- Developed a data capture and rendering product using primarily React, Node, and SQL, leading to more-informed decisions regarding future data collection.
- Resolved customer issues regarding Here's Javascript, Android, and REST APIs.
- Introduced over 20 potential customers to the capabilities of the Here APIs.

UC BERKELEY- CS 186 (DATABASES) | Head Undergraduate Student Instructor

August 2016 - May 2018 | Berkeley, CA

- Managed a team of 10 TAs to run course logistics efficiently.
- Led and taught 60 students in weekly discussion sections and office hours.
- Helped write a Java project in which students built a database implementing a functional version of SQL, query optimization, and concurrency control.
- Developed worksheets and homework, that over 500 students studied weekly, with topics including out-of-core algorithms and distributed databases.

PROJECTS

QUORA QUESTION PAIRS CLASSIFIER | Personal Project

Summer 2017

- Developed a classifier that determines if two questions are duplicates.
- Uses a deep neural network model trained on labeled Quora question pairs.
- Achieved a test accuracy of over 80%.
- Stack includes Scikit-learn, Tensorflow, and Keras.