Saksham Chitkara

sakshamchitkara12@cmu.edu | (412) 557-1059
http://www.contrib.andrew.cmu.edu/~schitkar/ | Github://saksham12 | LinkedIn://saksham-chitkara

EDUCATION

CARNEGIE MELLON UNIVERSITY
Masters of Science, Information Security
Aug 2017 - Dec 2018 | Pittsburgh, PA
Information Networking Institute
Scholarship Recipient - 2017

SRM UNIVERSITY
Bachelors of Technology in Computer Science
June 2016 | Chennai, India
College of Engineering
GPA: 4.0 / 4.0

COURSEWORK

GRADUATE
Ubiquitous Computing* (08-736)
Computer Systems* (15-513-18-600)
Computer Security* (18-730)
Machine Learning* (10-601)

GRADUATE - AUDITED
Green Computing (08-840)
Building User-Focused Sensing Systems (08-735)

SKILLS

Good:
Java • Python • C
Android • Django Framework
MySQL • Git • Vim • Shell Scripts

Familiar:
C++ • Matlab • Go • Assembly
HTML/CSS • LaTeX

LANGUAGES

English - Academic Proficiency
Hindi - Native Speaker

AWARDS

• INI Fellowship, (2 of 150 students)
@ Carnegie Mellon University
• Research Fellow,
@ Carnegie Mellon University
• Best Project Award,
@ SRM University
• India's Best Brains, Rank 3/3700

EXPERIENCE

CARNEGIE MELLON UNIVERSITY | Research Associate
Jan 2016 – June 2017 | Pittsburgh, PA

- Lead a 5 person CMU team to manage a DARPA funded project (Privacy Enhanced Android) on improving the privacy and security of Android. Worked in collaboration with teams from UC Berkeley, Cornell and UC Irvine.

DELL INC | Software Engineering Intern
Summer 2014 | Chennai, India

- Wrote scripts to perform security automation and testing. All code was reviewed, perfected, and pushed to production.

RESEARCH

CONTEXT-AWARE PRIVACY MANAGEMENT | Synergy Lab, CMU
First Author Publication at ACM - IMWUT (Ubicomp) 2017 | Android, Python

- Designed and built a Context-Aware library based permission model for Android which lead to 25% better protection and 30% reduced user decisions.
- `http://www.synergylabs.org/yuvraj/docs/Chitkara_Ubicomp2017_ContextAwarePrivacy.pdf` | DOI: 10.1145/3132029

PRIVACY PROXY | CHIMPS Lab + Synergy Lab, CMU
Technical Report Published | Aug 2016 – Aug 2017 | Android, Go, MySQL

- An app for unmodified android devices to detect Personally Identifiable Information (PII) by analyzing the network traffic of the crowd.
- Used a VPN service to modify the private data in requests and improved the battery overhead of the system by 20%.
- `https://arxiv.org/pdf/1708.06384.pdf`

PROJECTS

PROTECT MY PRIVACY | Synergy Lab, CMU
Jan 2016 – Aug 2017 | Pittsburgh, PA | Android, C, Python, Django, MySQL | 30,000+ downloads

- Built an end-to-end app, which collects a user's privacy decisions, enforces them at the OS level. Built a service to collect and periodically transmit the decisions.
- Designed and implemented a Firewall which blocks Wifi and mobile data on a per app basis by interacting with the Android Kernel.

PRIVACY ENHANCED ANDROID | CHIMPS Lab + Synergy Lab, CMU
Jan 2017 – Aug 2017 | Pittsburgh, PA

- Constructed an all-encompassing purpose taxonomy for private data access on smartphones and separate out private data access on the basis of the purpose.
- Enforced data transmission to apps on the basis of data-usage purposes.

BIO ACOUSTIC SENSING | CMU
Aug 2017 - present | Pittsburgh, PA | Ubiquitous Computing

- Using accelerometer data on wearable devices to capture the bio acoustic feedback to do activity recognition.

STEP COUNTER | CMU
Aug 2017 - present | Pittsburgh, PA | Ubiquitous Computing

- Using accelerometer data and peak detection to count the number of steps.