

# ANIKET ANAND

CS Ph.D. student

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## EDUCATION

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### The University of Chicago

Ph.D. in Computer Science

Advisor: **Prof. Grant Ho**

Cumulative GPA: 3.922/4

*Sept 2023-ongoing*

### Georgia Institute of Technology

M.S. in Computer Science

Advisor: **Prof. Alberto Dainotti**

Cumulative GPA: 3.91/4

*May 2023*

### Indian Institute of Technology (BHU)

B.Tech in Ceramic Engineering

Cumulative GPA: 9.34/10

*Jul 2020*

## RESEARCH INTEREST

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Data and security, machine learning, measurements

## KEY RESEARCH EXPERIENCES

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### Analysis of enterprise-grade resource access logs

*Dr. Alex Kantchelian, Google*

*Google internship: Jun-Sept 2025*

- Analyzed an existing benchmark access logs dataset, the CMU-CERT data. In particular, characterized the predictability of the CERT data using a high-precision anomalous access detection system called Facade.
- Used Facade to characterize CERT's machine login traces, file and email access traces found the anomalous scores of malicious accesses .
- Discovered very regular and periodic access patterns in the CERT dataset, and found that anomalous events are clustered together in the CERT dataset.

### Study of LLMs for analyzing system audit log

*Prof. Grant Ho, UChicago*

*Ph.D. project: ongoing*

- Created a comprehensive Linux and Windows system-log dataset consisting of diverse MITRE attack techniques and realistic benign activities resembling attack investigation scenarios.
- Synthesized descriptive investigation task-specific prompts and evaluated state of the art LLMs including Gemini-2.5-pro, GPT 5, etc. for investigations.
- Showed that the LLMs can be effective in achieving high investigation performance when prompted with descriptive and task-specific prompts.

### Internet connectivity in Ukraine following the 2022 invasion

*Prof. Alberto Dainotti, Georgia Tech*

*M.S. research: Spring 2023*

*manuscript ready for submission*

- Characterized Internet disruptions in Ukraine since the beginning of the Russian invasion using Internet Outage Detection and Analysis (IODA's) active probing signals and created a ground truth dataset of drops in the Internet connectivity.
- Developed a methodology for improving automated detection of Internet outages by comparing a time-series forecasting model's predicted connectivity level with the observed level.

**Aggressive Internet-wide scanners and their network impact** *Merit internship: Summer 2022*  
*Dr. Michalis Kallitsis, Merit Research and Prof. Alberto Dainotti, Georgia Tech*

- Identified aggressive internet scanners by leveraging data from a large Network Telescope and found that the aggregate impact of such scanners can be as high as 4.7% of total packets processed by the largest border router of an ISP serving over 1 million customers on a typical day
- Performed longitudinal analysis of these aggressive scanners with approximately 2 years of data and characterized targeted ports, fingerprintable tools used for scanning, scan origin, rate of scan, etc.

#### **Identified classes of major Internet networks**

*M.S. research: Spring 2022*

*Prof. Alberto Dainotti, Georgia Tech*

- Identified Autonomous System Numbers (ASNs) with large footprint in the U.S. and Ukraine by leveraging two data sources namely: 1. a combination of prefix to AS mapping from BGP data and MaxMind IP-geolocation data and 2. APNIC Eyeballs dataset
- Manually classified over 1000 major ASes into 6 types such as Residential ISP, Educational Institutes, etc. by leveraging RIR WHOIS records, PeeringDB, and organization websites as main data sources

## **PUBLICATIONS**

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- Aniket Anand**, Michalis Kallitsis, Jackson Sippe, and Alberto Dainotti. "Aggressive Internet-Wide Scanners: Network Impact and Longitudinal Characterization." To appear in CoNEXT 2023.
- Aniket Anand**, Waqar Asif, and Marios Lestas. "Performance Evaluation of PoW Blockchain in Wireless Mobile IoT networks." In 2021 17th International Conference on Distributed Computing in Sensor Systems (DCOSS), pp. 396-403. IEEE, 2021.
- Aniket Anand**, Antonino Galletta, Antonio Celesti, Maria Fazio, and Massimo Villari. "A secure inter-domain communication for IoT devices." In 2019 IEEE International Conference on Cloud Engineering (IC2E), pp. 235-240. IEEE, 2019.
- Gupta, Swati, Ravi Shankar Singh, and **Aniket Anand**. "Cloudlet Scheduling using Merged CSO algorithm." In 2018 Fifth International Conference on Parallel, Distributed and Grid Computing (PDGC), pp. 278-283. IEEE, 2018.

## **TEACHING EXPERIENCE**

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#### **Graduate Teaching Assistant (GTA)**

*Jan 2022 - May 2022*

*Online CS 6601 Artificial Intelligence, Georgia Tech*

*773 students, 22 TAs*

- Conducted weekly Office Hours for students and answered questions on Ed-Discussions to clarify conceptual doubts and helped students with code reviews
- Managed an assignment on Hidden Markov Models (out of total 6 assignments)
- Brainstormed and formulated exam questions for Mid-term and Finals and graded students' responses

## **RELEVANT COURSES UNDERTAKEN**

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**Grad-level:** Intro. to computational complexity, Graduate computer security, Advanced network security and measurement, Internet data science, Computer networks, Introduction to graduate algorithms, Distributed computing, Artificial Intelligence, Programming Languages

**Undergrad:** Network Security, Natural Language Processing, Operations Research, Computer Programming, Mathematical Methods

## **SCHOLASTIC ACHIEVEMENTS AND ACCOLADES**

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- Nominated for Sahaj Memorial Award of AIPMA for best student in Ceramic Engineering (2020)
- Selected among 35 students from India for NTU-India Connect Research Internship (2019)
- Secured All India Rank within top 4% in JEE-Advanced out of 200,000+ aspirants (2016)
- Achieved All India Rank within top 0.8% in JEE-Main out of 1.2 million+ aspirants (2016)
- Secured a top 300 spot in National Standard Examination in Junior Science (NSEJS) (2013)

## **PAST RESEARCH INTERNSHIPS AND PROJECT**

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**Performance Evaluation of PoW Blockchain in Intermittent Network Connectivity May 2020 - Mar 2021 (Covid-19 Affected)**

*Prof. Marios Lestas (Frederick University) & Dr. Waqar Asif (University of West London) Paper*

- Simulated Proof of Work blockchain instances with wireless and mobile nodes using ns-3 simulator
- Analyzed performance of blockchain instances by extensive analysis of various network and consensus parameters such as transmission power, node density, node mobility, block interval, and block size