

# TANISHQ RUPAAL

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## Experience

- **Praetorian Security, Inc. | Senior Security Engineer** Oct 2022 - Present
  - Published a AWS security-focussed blog post on ABAC in Lambda
  - Assessed security posture of mobile & web apps, cloud & network infrastructures
  - Improved quality of assessment reports for the cloud security service line
  - Performed all responsibilities of a Security Engineer
- **Praetorian Security, Inc. | Security Engineer** Jul 2021 - Oct 2022
  - Performed solo and grouped (team of 2) security assessments for clients
  - Assessed web applications, cloud infrastructure and micro-services
  - Lead client interviews to understand and document details of client systems
  - Prepared remediation plans for client systems to improve their security posture
- **Georgia Institute of Technology | Graduate TA** Jan 2020 - May 2021
  - Supervised course logistics for the course CS 6035/4235 - Intro to InfoSec
  - Prepared and graded examinations, assignments and quizzes for 200+ students
- **Google LLC | Security Engineer Intern** May 2020 - Aug 2020
  - Improved Fuzzbench to use single source of truth for benchmark container builds
  - Eliminate differences between standard and OSS-Fuzz benchmark integration
  - Integrated a coverage guided fuzzer, Manul into Google Fuzzbench project
  - Written PoC fuzz targets for 2 open source projects
- **Paramount Computer Systems | Security Intern** Aug 2018 - Jan 2019
  - Implemented a Secure File Upload Web Server with account management built for clients to upload log files securely to a public facing server
  - Developed an Automated Vulnerability Assessment (VA) Bot
  - Delivered presentations on Ransomware awareness to healthcare practitioners

## Education

- **Georgia Institute of Technology** Aug 2019 - May 2021  
MS in Cybersecurity | CGPA - 3.92 / 4.0
- **BITS Pilani** Aug 2015 - Jun 2019  
BE (Hons.) Computer Science | CGPA - 9.51 / 10.0

## Core Skills

- Proficient in Python, Bash and fundamentals of C, C++, java, and web (html/css/js/php)
- Experienced in using BurpSuite with knowledge of OWASP Top 10
- Experienced with Nmap, Nikto, Wireshark and Hydra, GDB, Ghidra
- Experienced in Linux and Binary Exploitation techniques
- Knowledgeable in Computer Networking, Docker and build systems like Make
- Past participant in a few Capture The Flag competitions



## Projects

- **Analysis of Top 1 Million Domains** March 2020
  - Analyzed Majestic, Alexa and Tranco lists applied to 3 security metrics - HTTP/2.0 adoption, IPv6 adoption and TLS adoption
  - Crawled 1 million domain lists for 30 days and visualized popularity changes
  - Performed trend analysis for Top 100, 1000, 10000 forecasts
- **SubDextract - Sub domain enumeration** March 2020
  - Implemented using Python, useful even in local-only network environments
  - Incorporated fast and reliable queries such as CT logs, SAN, DNS, etc.
  - Yields 10x speedup with decrement of 30% # subdomains compared to Sublist3r
- **Cookie-Less secure Login** Jan 2019
  - Constructed login page without cookies using php and js constructs
  - Enforced security against SQLi, token/cookie based attacks and replay attacks
- **EncCat - Encrypted TCP socket Communication** May 2018
  - Created a secure communications and large file sharing tool on python
  - Emulated netcat with addition of a self-devised encryption scheme (salsa20 + rsa)
  - Yields 2x speedup for file transfers against cryptcat (twofish)
- **Secure Voting on Blockchain (Ethereum Platform)** Apr 2018
  - Developed a secure voting system using node.js in a team of 2
  - Secured against replay attacks, session hijacking, XSS and CSRF using helmet.js

## Accomplishments

- Dubai Police CTF Competition - Top 15 (Feb 2019)
- Hack in The Box (HiTB) Conference 2018, Dubai (Oct 2018)  
Secured Rank 1 (UAE) in CTF (Professional Tier) competition under team "PCR\_RT"
- IEEE Xtreme 11.0 : Programming competition (Oct 2017)  
Secured Rank 1 (UAE), Rank 415 globally, under team "Optimise Prime"
- Research Proposal | Dubai Electronic Security Center (DESC)  
Proposed a network topology with self healing threat identification and correction.
- Developed prototype for a Healthcare activities Tracking System as part of team Medikate in NYU Abu Dhabi Hackathon 2019
- Participated in Global OSINT Search Party CTF by TraceLabs
- Solved numerous challenges from HackTheBox, VulnHub, Root-me and Pwnable

## Extra-Curricular and Hobbies

- President, Founder and Workshop Instructor for ACM The Hacker's Exclusive (HEX), an SIG (special interest group) at BITS Pilani, Dubai Campus
- Managed student employment and placements as a Student Executive, Careers Division at BITS Pilani, Dubai Campus
- Tinkering with linux systems and security tools in my home lab
- Avid involvement (talks and CTF) in Security Conferences like BSides, HiTB
- Drumming, Photography, Digital Presence Design and Digital Concept Art

