# Navid Fazle Rabbi

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LinkedIn | GitHub | CTFTime | TryHackMe | Researchgate | Google Scholar

Cybersecurity has long been a source of fascination for me. Years of experience in the industry have given me a thorough grasp of how to detect and exploit flaws in poorly built systems. I have extensive experience performing vulnerability assessments and penetration testing on web, API, and mobile apps. My interest in cybersecurity is focused on Offensive Security, which includes vulnerability discovery, exploit building, and tool design for penetration testing. My ultimate ambition is to become a prominent specialist in computer security.

# Work Experience -----

bKash Limited	Senior Engineer, Offensive Security Research	May '23 – Present
DRASH LITHILEU	Engineer, Offensive Security & Compliance	April '21 – April '23

bKash is one of the Largest Mobile Financial Service in the world. My key responsibilities include: Leading Front End Security Assessment Team, responsible for conducting security assessment on Web Applications, APIs and Mobile Applications. Conducting Security Assessment for the Web Applications, APIs, and Mobile Applications managed, maintained, and used by bKash. Developing Exploits for existing and newly found vulnerabilities in light of the bKash system and environment. Reverse Engineering bKash used software and mobile applications. Malware Programming and Analysis for Research and Development. Conducting Red Team Operations to ensure proper Cyber Resilience against APTs. Testing Cloud and Scalable Infrastructures for vulnerabilities and ensuring proper Hardening against different benchmarks. Source Code Analysis and Sanitization.

#### **Education Background -----**

B. Sc. Engg   Electrical and Electronic Engineering   Islamic University of Technology	C. G. P. A. 3.10			
Admission Rank 70   Recipient of OIC Scholarship				
Noteworthy Course-works: Communication Engineering, Microprocessor & Assembly Language, Wireless Communication, Micro-				
controller Based System Design, Data Communication & Networking, Embedded Systems, Advanced Communi	cation Techniques.			

# Research Projects ------

- Security, Malware Analysis, Machine Learning Advanced Malware Analysis & Antivirus Tool using Python (<u>Currently</u> <u>Working</u>)
- Security, Malware Analysis, Code Attribution Advanced analysis of codes, attribution analysis and malicious intent identification (<u>Currently Working</u>)
- **DevSecOps, VA** Integration of Burp Suite Enterprise with CI/CD Pipeline (Jenkins) & Code Sanitization (SonarQube)
- **API, Attack Surface** Fraud Replication to impersonate Fraud Cases and increasing the understanding of the attack-vector.
- Web Application, Deep Learning, Network Face Detecting Surveillance System (Currently Working)

#### **Undergraduate Projects -----**

- <u>RaspberryPi Security Camera Network (4<sup>th</sup> Semester Project)</u>
- Design of Butterworth and Chebyshev Filter using MATLAB and Hardware Implementation. (8th Semester Project)
- Speech Recognition using MATLAB (7<sup>th</sup> Semester Project)
- Prospects of Energy Harvesting in Three Different Sectors (Cycling, Running, Sewing Machines) in Bangladesh (6<sup>th</sup> Semester Project)
- Design and Hardware Implementation of Calculator using Basic Logic Circuits (2<sup>nd</sup> Semester Project)

#### **Research Interest -----**

•	Offensive Security	•	Computer Networks	•	Reverse Engineering
•	Malware Analysis & Development	•	Mathematics	•	Web Application Security
•	Exploit Development	٠	Cryptography	•	Mobile Application Security

#### Exploits & Tools Developed ------

CrossDomain XML Exploit	Exploit	Action Script, Python	Exploit   Document
dl_bfb (Authentication Brute-force)	Tool	Python	Link
Knock! Knock! (Subdomain & Directory Enumerator)	Tool	Python	<u>Link</u>

Cookie Monster (Automated Cookie Modifier)	Tool	Python, JS	Link
NTLM_Spray (Password Sprayer)	Tool	Python	<u>Link</u>

Others: Network & Port Scanner, Hash Cracker, Keylogger, SSH Brute-Forcing, Vulnerable JS Identifier, More

#### **Preprints** ---

 Design, Implementation, Comparison, and Performance analysis between Analog Butterworth and Chebyshev-I Low Pass Filter Using Approximation, Python and Proteus (NF Rabbi - arXiv preprint arXiv:2102.09048, 2021 - arxiv.org)

# Undergraduate Thesis ------

Design and Implementation of Server Based Position and Angle Measurement and Control of DC Motor

### Skills-----

Language	C, Python, JavaScript, Bash, SQL, Assembly Language, Dart, Rust, PHP, Go	
Software	tware BurpSuite, Metasploit, Netsparker, Postman, Wireshark, C IDEs, Python IDEs, Browser Consoles, and Oth	
	different Penetration Testing tools and software	

## Notable Certifications ------

- Certified Ethical Hacker (CEH) | EC-Council
- Certified in Cybersecurity (CC) | (ISC)<sup>2</sup>
- Certified Payment-Card Industry Security Implementer (CPISI) | SISA
- Introduction to Cybersecurity Tools & Cyber Attacks; Cybersecurity Roles, Processes & Operating System Security; Cybersecurity Compliance Framework & System Administration | Coursera – IBM
- CS50's Understanding Technology | HarvardX
- **CS50's Introduction to Computer Science** | HarvardX
- CS50's Introduction to Programming with Python | HarvardX
- OPSWAT Network Security Associate | OPSWAT Academy

#### Industrial Attachments ------

Ghorashal Thermal Power Plant (GTPP) (Power Engineering)	Maintenance of gas turbine generators, cooling subsystem, safety system, and role of Transformers at the generation side.
Bangladesh Telecommunication Company Limited (BTCL) (Telecommunication)	Different switching equipment, satellite communication, submarine cable network, etc.
Bangladesh Atomic Energy Commission (Nuclear & Electronics)	Nuclear research reactor TRIGA-different components and some use of this reactor.

### Scholarships and Awards ------

- Continuously attempting CTFs in TryHackMe, HackTheBox, picoCTF and many other competitive CTF Playgrounds.
  Handle: <u>DL28</u>; Team: <u>IUT Genesis</u>
- Financial Institution CyberDrill 2021 | Country Rank 2 | bKash Ltd.
- **Financial Institution CyberDrill 2022** | Country Rank **3** | bKash Ltd.
- **OIC Scholarship** | Rank 70 (IUT Admission Test)
- International Assessment for International Schools | University of New South Wales, Australia
  Distinction: Computer Skills, Science | Credit: Mathematics

# Extra-Curricular Experience ------

- IEEE IUT Student Branch | Chair (2019) | Lead Technical Officer (2018) | Webmaster (2017)
- IUT Career & Business Society | President (2019) | General Secretary (2018) | Creative Director (2017)
- Esonance (Annual Departmental Electrical Fest) | President (2019) | Web Developer (2017-2018)