

# Pratham Gupta

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## EDUCATION

New York University IIIT Delhi	<b>MS in Cybersecurity</b>   GPA : 4.00 <b>BTech in Computer Science and Engineering</b>   GPA : 3.5	August 2023 – May 2025 August 2018 – May 2022
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## RELEVANT COURSEWORK

- |                    |                          |                         |                       |
|--------------------|--------------------------|-------------------------|-----------------------|
| • Cryptography     | • Penetration Testing    | • Application Security  | • Algorithms Analysis |
| • Network Security | • Vulnerability Analysis | • Computer Architecture | • Operating Systems   |

## TECHNICAL SKILLS

**Languages :** Python, C/C++, GoLang, Bash, SQL, Rust, PowerShell

**Security Tools :** Kali Linux, Burp Suite, Metasploit, Nessus, Wireshark, Splunk, OpenVAS, Palo Alto, SQLMap, OpenSSL, Libgcrypt

**Networking :** Packet Analysis (Wireshark, tcpdump), Secure Protocols (SSH, TLS/SSL)

**Compliance and Frameworks :** ISO 27001, OWASP, NIST, PCI DSS

**DevSecOps :** Docker, Kubernetes, SonarQube, Jenkins

## EXPERIENCE

### Cybersecurity Engineer (Intern) | Protiviti

July 2024 – September 2024

- Developed a DNS Resolver tool to automatically resolve subdomains and IPs for a given domain, storing results in an Excel file to facilitate efficient vulnerability assessments.
- Engineered an Active IP Finder tool to automate the discovery of active IPs within subdomains of a given domain, with results exported to an Excel file for streamlined analysis.
- Conducted penetration tests across various systems, uncovering 10+ vulnerabilities, and delivered actionable remediation strategies, reducing risk exposure by 50%.

### GenAI Intern | SymphonyAI

June 2024 – July 2024

- Automated script execution workflows by dynamically altering variables, consolidating retailer-specific scripts into a single modular script, reducing redundancy and improving operational efficiency by 40%.
- Built and maintained interactive dashboards and reports to visualize key performance indicators (KPIs) and metrics, improving accessibility and stakeholder decision-making processes.
- Collaborated with cross-functional teams to deploy AI-driven solutions, enhancing data processing speed by 5x and improving overall system performance.

### Software Developer | PayTM (India's Biggest Digital Finance Company)

June 2022 – August 2023

- Secured multi-platform payment systems by implementing PCI DSS-compliant 3D Secure payment solutions, mitigating potential financial losses of \$30M and reducing fraud.
- Developed and optimized transaction flows, increasing efficiency by 50% while implementing secure wrappers and API hardening to protect sensitive user data from potential breaches.
- Identified and resolved vulnerabilities in token-based payment methods, preventing exploits such as replay attacks and enhancing overall payment gateway security.
- Designed and maintained distributed systems using Kafka, Spring Boot, and sharding mechanisms, ensuring high availability, fault tolerance, and secure transaction handling.

## PROJECTS

### LintAid: Seamless Linter Integration | Python, Npm, CLI, OpenSSF, OWASP

Spring 2024

- CLI tool that seamlessly integrates linters into existing projects for various programming languages.
- Contributed to improving code quality, security, and performance by facilitating the adoption of linters.
- Addressed common developer concerns regarding linting, such as the tedious setup process.

### OpenTelemetry Security Assessment | Git, OpenSSF, OWASP, Threat Modelling

Fall 2023

- Crafted a security assessment for the OpenSSF project of OpenTelemetry.
- Conducted Threat Modelling for security risks and overall security model for the project.
- Analysed the project needs and deliverables to provide insights about the company from a security perspective.
- Assessment is reviewed and merged in the official repository of the OpenSSF projects.

### DESy: Decentralized Education System | Hyperledger Fabric, Node.js, Rest.js, GoLang, Python

May 2022

- Blockchain implemented education system, which makes students in control of their studies.
- Executed a Government of India project to implement New Education Policies.
- Established a blockchain consortium of universities, empowering students to select their preferred university and courses.

## AWARDS AND CERTIFICATIONS

### Academic Excellence Award for 4.0 GPA | New York University

Fall 2025

### Top 5 out of 200 participants | VIVID CTF | National Centers of Academic Excellence in Cybersecurity (NCAE-C)

Spring 2024

### 1st Position in In-Person Teams | Jersey CTF | New Jersey Institute of Technology

Spring 2024

### Cybersecurity & IoT Certification | University System of Georgia (online) | Certificate Link

May 2020

### Machine Learning Certification | Stanford University (online) | Certificate Link

June 2020