# **Aryan Chandrakar**

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#### **EDUCATION**

## **Carnegie Mellon University**

Pittsburgh, PA

Master's in Information Technology Information Security - 3.91/4 CGPA

Aug 2022-Dec 2023

Introduction to Information Security • Information Assurances • Cyber Law & Ethics• Telecommunication and Computer Networks

Upcoming courses- Adversarial Machine Learning, Browser Security, Network Security & Cyber Risk Modeling

**Vellore Institute of Technology** 

Vellore, TN

Bachelors in CSE with spec. in Information Security - 9.13/10.0 CGPA

July 2018-May 2022

Cryptography • Blockchain & Cryptocurrency Technology • Web Security • Cyber Security • Data Privacy

#### **SKILLS**

Python • Java • JavaScript • SQL • Windows • Linux • Kibana • Wireshark • Suricata & Snort • Cryptography • Networks • Web-Development • Tableau • Microsoft Office 365

#### **EXPERIENCE**

#### **Data Privacy Software Development Intern**

July 2021-August 2021

Imphy Ugine Precision

- Evaluated employee's data privacy on a social network on a web application constructed to target the data cluster, links, and sparsity issues to save from homogeneity attack
- Diagnosed the non-anonymized data to assess the chance of identifying a particular personal
- Came up with a recommender system which uses L-diversity & T-closeness anonymization to provide better online privacy to users, using python & web-development tools

#### **Application Development Intern**

May 2020-July 2020

Jindal Stainless Ltd.

- Reduced halt time spent in several phases by establishing a data managing application using Java
- Optimized the resource spent on managing the products and equipment, with need of only a single authority to handle it all

#### **MAJOR PROJECTS & RESEARCH WORK**

## • Securing Private Infrastructure with Smallstep step-ca server

2022

- With a team, developed an automated certificate token issuer for password-less logins
- solved the access management issues by leveraging their existing OIDC compliant IAM systems
- o Automated revocation, authentication & authorization solving issues in access management

#### • Approach to Deal with Prevailing Threats & Issues of False Privacy & Security

2022

- Decreased network latency from 725ms to 65.68ms, with introduction of improved version of Onion routing protocol developed in python
- Developed system and browser assessor using python, web-dev tools to keep secure with only effect of 0.4% in retransmission and 1.6ms for latency with almost nil effect on CPU load

## Image Protected Hypertext Transfer Protocol

2021

- Introduced communication protocol to hide packet besides encrypting as in HTTPS, providing a security of 2.6\*10^21 yrs. against brute force attack
- o Developed using python, reduced chance of MITM attack during communications

# **Parallel Web Crawler and Vulnerability Assessment**

2021

- A crawler that runs 6% more efficiently with user centric alerts and secure development
- O Developed in python, fetches the links and hyperlinks from any website, the crawler also performs a vulnerability scan on them including the XSS, SQLi, SSL stripping etc.

#### **EXTRA-CURRICULAR ACTIVITIES**

- Gold Level NASSCOM Certified Security Analyst
- Math a thon Rank-2 Honour
- Ex- PR Head Visual Blogger's Club