

PRABITH GS

mail@prabithgupta.com | prabithgupta.com/blog | linkedin.com/prabithgs | github.com/ad0lphus

PROFILE

A skilled hardworking individual who is passionate about fortifying cybersecurity defenses and harnessing the transformative potential of AI

EDUCATION

Amrita Viswa Vidyapeetham Kollam, India
Bachelor of Technology in Computer Science and Engineering CGPA: 8.82/10 July 2020 - June 2024**
Activities and societies: Swagatham'21 and team bi0s
Relevant Coursework: Programming; Computer System Essentials; Data Structure and Algorithms; Engineering Mathematics; Software Engineering; Operating Systems; User Interface;

Ben Gurion University of the Negev Beer Sheba, Israel
*The Data Mining and Business Intelligence for Cyber Security summer program July 2023 - August 2023**
Relevant Coursework: Machine Learning; Deep Learning, Artificial Intelligence; Python; Cyber Security

EXPERIENCE

Security Researcher Jun 2022 – Present
Traboda CyberLabs OnSite - Kochi, India

- Engaging in offensive security projects and Specializing in **malware analysis and offensive security**, I analyze and **reverse engineer malware**, uncovering their behavior, vulnerabilities, and weaknesses to create effective countermeasures against attacks.

Product Development Engineer Jun 2021 – Mar 2022
Traboda CyberLabs OnSite - Kollam, Kerala, India

- Design the UI/UX, databases, and APIs for the Traboda products using **Django, Typescript, NextJS, GraphQL API, PostgreSQL, and Docker**; Communicate with developers team for **product roadmap/performance enhancement**;
- Coordinate with **content writing and marketing team** for better product development.
- Collect **feedbacks/surveys** from end-users and QA testers for improvements; **build and test** the platform to identify issues and make necessary modifications.

Security Researcher Jun 2021 – Sep 2021
ACM OnSite - Kollam, Kerala, India

- Worked on a research project titled "Towards The Reliability of PRNU Based Scanner Identification For Securing Authentication In IIoT"

LEADERSHIP AND MENTORSHIP

SSR | Coordinator Jan. 2022 – March 2022

- Organized and conducted a comprehensive workshop on cybersecurity and competitive programming, addressing the knowledge gap in these fields. Offered tips, strategies, and hands-on exercises to improve participants' coding skills and enhance their competitiveness in online contests.

bi0s | Mentor and Reverse Engineering Lead Aug 2020 – Present

- Member and Lead of bi0s Reverse Engineering - team focused on Reverse Engineering Software and finding Vulnerabilities, research in collaboration with mentors from Cred, Microsoft, Google, Amazon, Amrita Center for Cyber Security systems and networks, etc...
- Mentored college juniors in various technical and Non-Technical projects.
- Active member of Ayudh and amese, an organisation focusing on developing sustainable development in villages across India and driving social service events, clean up drives and visiting orphanages to study their needs and help them directly.

amFOSS-bi0s Nights | Core-Organiser April. 2022

- One of the core organisers that organised the entire cultural event, listed requirements, designated teams and figured out event logistics.

infoSec Training | *Training Lead*

November. 2022

- I conducted a comprehensive five-day training program for Btech students from Amrita Institutions Nagercoil, collaborating with three fellow team members.
- The training covered various aspects of cyber security, including topics such as reverse engineering, web exploitation, cryptography, forensics, and binary exploitation.

PUBLICATIONS

- Prabith GS, Rohit Narayanan M, Arya A, Aneesh Nadh, and Binu PK. Prabith GS, Rohit Narayanan M, Arya A, Aneesh Nadh, and Binu PK. *"BiT5: A Bidirectional NLP Approach for Advanced Vulnerability Detection in Codebase."*, International Conference on Innovative Data Communication Technologies and Application, 2024.
- Prabith GS, and Anjali T. Prabith GS, and Anjali T. *"Hierarchical ST-CEN with Dynamic Attention Mechanisms for Enhanced Deepfake Image Detection."*, 3rd International Conference on Intelligent Computing, Communication Convergence, 2023.
- Prabith GS, S Abhishek, and Anjali T. Prabith GS, S Abhishek, and Anjali T. *"Next-Gen AI in Medicine: Pioneering Brain Tumor Detection with Adaptive CNNs."*, 3rd International Conference on Intelligent Computing, Communication Convergence, 2023.
- Prabith GS, S Abhishek, Anjali T, and Radhika Ravindran. Prabith GS, S Abhishek, Anjali T, and Radhika Ravindran. *"Zero-Click Exploits and Malware: An In-Depth Analysis and Case Studies."*, 16th International Conference on Security of Information and Networks, 2023.
- Prabith GS, S Abhishek, Anjali T, and Nandakishor Prabhu Ramlal. Prabith GS, S Abhishek, Anjali T, and Nandakishor Prabhu Ramlal. *"Advancements in Face Masking Anonymization: Novel Approaches, Robust Privacy Metrics, and Real-time Solutions."*, 7th International Conference on Electronics, Communication and Aerospace Technology, 2023.

PROJECTS

Threat Hunter — ML based Malware Detection | *PE Parser*

Aug. 2023 – Sep. 2023

- This project presents an approach to automatically classify files as either legitimate or malicious using machine learning techniques. The primary objective is to develop a robust and accurate classification model that aids in identifying potentially harmful files in a given dataset.

MalDoc Detector — ML based Docx VBA Macro Detection | *PE Parser*

July. 2023 – Aug. 2023

- Developed a deep learning-based machine learning model to detect VBA macros in Docx files and compare the performance of various models for enhanced document security.

Traboda Arena | *React.js, Typescript, Django, Next.js*

Jun. 2021 – March 2022

- Traboda Arena platform is a **cyber security skill assessment** and **benchmarking platform**, that can be used by enterprises and institutions.
- Traboda uses the **python-based Django framework** as the **primary backend** for its platform. Frontend that runs Traboda.com, a **NextJS-React JS** WebApp that consumes APIs from the framework.

Traboda Academy | *React.js, Typescript, Django, Next.js*

Oct. 2021 – Mar. 2022

- Platform to teach cybersecurity concepts. Built the platform using **React, TypeScript, Django, and GraphQL**.

InCTF, InCTF Junior, bi0s CTF | *Organiser, Executive Core Team Member*

Aug. 2020 – Present

- I have organized several **Capture the Flag** competitions with team bi0s, including **InCTF, InCTF Junior, and bi0s CTF**. InCTF and InCTF Junior are **national-level competitions** aimed at promoting cybersecurity skills among students, while bi0s CTF is an **international-level** competition with an **80 rating**

PRNU biometric Authentication system | *fingerprint sensor, Raspberry Pi 3*

Oct. 2021 – Mar. 2022

- checking the reliability of the remote user authentication that combines Photo Response Non-Uniformity (PRNU) and fingerprint bio-metrics by creating a tool for the authentication using Python.

WORKSHOPS ORGANIZED

Cybersecurity Essentials Workshop

Role: Lead Speaker

Date: October 2022

Description: Description: Covered fundamental cybersecurity concepts, network security, encryption, and ethical hacking techniques at Amrita Institutions, Nagercoil.

Cyber security Crash Course

Role: Organizer

Date: August 2021

Description: Conducted a month-long crash course introducing first-year students to cybersecurity, covering network security, ethical hacking, malware analysis, cryptography, and secure coding.

HONORS AND AWARDS

2023: Scholarship, Attended Summer School at BGU (Beer Sheva, Israel)

2023: Scholarship, Attended Black Hat Asia 2023 (Singapore)

2022: Achievers Award, Amrita School of Computing (Amritapuri, Kerala)

2022: Runner-up, BSidesSF 2022 CTF (Online- San Francisco, CA)

2022: Best Programmer, Dev-CTF (India)

2021: Runner-up, ISFCR Hackathon 2021 (Bangalore, India)

2021: Runner-up, Securinets CTF Quals 2021 (Tunisia)

2021: 2nd Runner-up, WPICTF 2021 (Worcester, MA)

2021: Winner, Indo-Dutch Cyber Security School team event (India-Dutch)

2021: Completed, advent of code 2021 (Global)

2020: Winner, DarkCTF 2020 (India)

2020: Winner, IJCTF 2020 (India)

2020: Runner-up, Byte Bandits CTF 2020 (India)

2019: Best Speaker, KVS (Regional) Youth Parliament (Kerala, India)

2019: Completed, GCI 2019 (Global)

2015-19: Regional Champion, KVS State Level (Regional) Athletics (2015 to 19 — U-14 ,U-16 ,U-19) (Kerala)

REFERENCES

Prof. Vipin Pavithran

Cyber-security professor at Amrita Center for Cyber security Systems and Networks, Amrita Vishwa Vidyapeetham.

Founder, Team biOs

MD, Traboda CyberLabs, Pvt. Ltd

Email: vipinp@traboda.com

Dr. Jyothi S. N.

Associate Dean & HoS, School of Engineering, Amritapuri

Email: jyothisn@am.amrita.edu

Dr. Geetha M.

Research Head, School of Computing, Amritapuri

Email: geetham@am.amrita.edu

Dr. Nimmy K.

Assit. Professor of Computer Science, School of Computing, Amritapuri

Email: nimmy@am.amrita.edu

Prof. Siji Rani S.

Asst. Professor, School of Computing, Amritapuri

Email: sijiranis@am.amrita.edu