# SAKET **UPADHYAY**

Cybersecurity Undergraduate · India
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I am a research-oriented undergraduate cybersecurity student, interested in malware analysis, reverse engineering, low-level security, adaptive cyber defence and nature-inspired cybersecurity. Seeking more experience in the domain of security research and malware analysis.

## EXPERIENCE

**JUN 2020 – AUG 2020**
**RESEARCH INTERN,** RENAULT-NISSAN-MITSUBISHI
Research in Advance Cybersecurity Concepts for Autonomous Vehicles.

**MAY 2020 – JUN 2020**
**PROJECT INTERN,** MADHYA PRADESH POLICE
Development of an SOS application.

**DEC 2020 – JUL 2021**
**WEB DEV. AND CYBERSECURITY TEAM,** GOOGLE DEVELOPER STUDENT CLUB, VIT
Talks about the implementation and impact of web and application security in the web dev. team.

**JUL 2020 – JUN 2021**
**PLOYX MALWARE RESEARCH MEMBER,** POLYSWARM
Analyse new malware types and create possible detection filters and rules.

**JUL 2019 – JUL 2019**
**PENETRATION TESTING TRAINEE,** AZURE SKYNET SOLUTIONS PVT. LTD.
Penetration testing and vulnerability assessment of black-box VMs.

## PUBLICATIONS

**12 APRIL 2020**
**PACER: PLATFORM FOR ANDROID MALWARE CLASSIFICATION, PERFORMANCE EVALUATION AND THREAT REPORTING,** FUTURE INTERNET, MDPI
A platform for security report generation of android smartphones using Multiple ML models via P.A.C.E. Framework.

**24 FEBRUARY 2020**
**PACE: PLATFORM FOR ANDROID MALWARE CLASSIFICATION AND PERFORMANCE EVALUATION,** IEEE BIG DATA CONFERENCE 2019
Framework for Multiple Model Malware Detection for Android-based malware.

## PATENT / COPYRIGHT

**PATENT**

**SYSTEM AND METHOD FOR CHARACTERIZATION OF EXTERNAL MEMORY DEVICES,** 369424 (202021023324)

Date of Grant: 16/06/2021.

**COPYRIGHT**

**PAMC: PLATFORM FOR ANDROID MALWARE CLASSIFICATION AND PERFORMANCE EVALUATION,** SW-14439/2021

## EDUCATION

**JUNE 2022**

**BACHELOR'S OF TECHNOLOGY,** VELLORE INSTITUTE OF TECHNOLOGY

Major in CSE with specialization in Cybersecurity and Digital forensics. (8.5 CGPA)*

**MAY 2018**

**HIGH SCHOOL (10+2),** KENDRIYA VIDYALAYA, AIRFORCE STATION OJHAR

Major in Physics, Chemistry and Mathematics with Computer Science. (PCM+CS)

## SKILLS

- **Reverse Engineering (ELF, PE, APK)**
- **Assembly (x64, x86, 8086)**
- **C / C++ / Python3 / Java**
- **Threat Analysis**
- **Vulnerability Assessment**
- **ELF / PE Malware Analysis (Beginner)**
- **Android Malware Analysis (Intermediate)**
- **Research**
- **Report Writing**
- **Secure Coding (Android, C++)**

## HONOURS & AWARDS

**DEC 2019**

**BEST PAPER AWARD,** IEEE INTERNATIONAL CONFERENCE ON BIG DATA 2019

Best paper award for research paper Titled "PACE: Platform for Android Malware Classification and Performance Evaluation" at The 3rd International Workshop on Big Data Analytic for Cyber Crime Investigation and Prevention, IEEE International Conference on Big Data 2019, Los Angeles, CA, USA.

**MAY 2020**

**NATIONAL HACKATHON WINNER,** HACKCOVIT'20

Won HackCoVIT 2020 (Hackathon) organized by Vellore Institute of Technology in association with DSC, MSP and Coding Blocks in the domain of Information Security.

**MAY 2020**

**1ST RANK (ASIA-PACIFIC), SECURE CODE TOURNAMENT,** DERPCON 2020

Secure Coding Tournament held in Denver Enterprise Risk Professionals Conference 2020. (derpcon.io)

**JUN 2020**

**WINNER (ASIA-PACIFIC) CLOUD SECURITY CTF,** TRENDMICRO

Cloud Security CTF organized by Trend Micro Incorporated, Development Security Conference 24

**AUG 2020**

**1ST RANK (GLOBAL), SECURE CODING TOURNAMENT,** DEFCON 28

DEF CON Safe Mode (Global Hacking Conference)

**APR 2021**

**1ST RUNNER-UP,** HACKDSC'21

Google DSC National Hackathon. Domain: Open Innovation, Data Privacy and Security

# PROJECTS

**JUN 2022 – JUN 2022**

**WISDOM,** HACKDSC'21

Strategic Data Obfuscation Module that takes your sensitive data and converts it into a work of literature. 1st runner-up in HACKDSC'21, Open Innovation.

**MAR 2021 - ONGOING**

**XSFOS,** PERSONAL PROJECT

xSFOS: (X Six Four Operating System) is a simple 64bit Linux Kernel from scratch.

**MAR 2021 - ONGOING**

**XSIMPLELINUXKERNELMODULE,** PERSONAL PROJECT

Project to understand more about Linux Kernel Modules

**SEP 2020 – MAY 2021**

**WRITERSCRIPT,** PERSONAL PROJECT

Word Count dependent Esoteric Programming Language based on BrainF*ck Logic, I created this project to help myself learn Theory of Computation and Compiler Design (5th Semester Course).

**MAY 2020 – DEC 2021**

**SAMPARK: WEBSITE BASIC SECURITY SCANNER,** HACKCOVIT'20

SAMPARK is a modular website security scanning framework. Winner of HackCoVIT '20 National Hackathon, Information Security Domain

**JAN 2020 – MAR 2020**

**ANDROID DEVICE THREAT REPORT GENERATION USING PACE FRAMEWORK AND ADB,** RESEARCH PROJECT

For our research paper titled "PACER"

**SEP 2019 – DEC 2019**

**PACE: PLATFORM FOR ANDROID APPLICATION CLASSIFICATION AND EVALUATION,** RESEARCH PROJECT

For our research paper titled "PACE"

**JUL 2019 – AUG 2019**

**PROJECT ON BUFFER OVERFLOW, PRIVILEGE ESCALATION AND CLIENT-SIDE ATTACK,** INTERNSHIP PROJECT

In association with Azure Skynet Private Limited.

**DEC 2018 – MAR 2019**

**MOVEMENT TRACING IN ANDROID USING POLYGRAPH LINES,** CSDF-DIVISION PROJECT

Cyber Security and Digital Forensics Division project, in association with MP Police

## VOLUNTEERING

**JUN 2022**

**CYVIT'20,** VELLORE INSTITUTE OF TECHNOLOGY

Technical Team Student Lead, Annual Cybersecurity Conclave.

**MAY 2018**

**STUDENT VOLUNTEER,** INTERNATIONAL FACULTY DEVELOPMENT PROGRAM

FDP Topic - "Post-Pandemic Computational Sciences: Challenges and Opportunities"
Affiliation – Vellore Institute of Technology

**MAY 2018**

**CYVIT'19,** VELLORE INSTITUTE OF TECHNOLOGY

Technical Team Student Lead, Annual Cybersecurity Conclave.

## LANGUAGES (COMMUNICATION)

**HINDI** (NATIVE)
**ENGLISH** (PROFESSIONAL PROFICIENCY)
**RUSSIAN** (ELEMENTARY)

**CGPA as of 6$^{th}$ semester final exams (3 complete years out of 4)*