Vaibhav Bedi
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Profile Summary

- Overall 2.8 years of experience in Embedded System, Internet of Things, Medical devices and cyber security.
- 7 months experience as a Research Staff.
- Experience in decoding the modulation signal using GNU Radio, Audacity and Inspectrum.
- Hands on experience with extracting firmware, JTAG exploitation, SPI, I2C, and UART.
- Delivered the talks in various open source communities like NULL Bangalore, c0c0n kerala, Red Team Security Summit, OWASP and Test Tribe.

Area of Interest

- ✓ Internet of Things
- ✓ Embedded System
- ✓ Penetration Testing
- ✓ Reverse Engineering
- ✓ Cyber Security

Work Experience

Singapore University of Design & Technology | Research Assistant
Jan 2020 – Present | Singapore, 520826
- Framework Development
- Bluetooth Exploitation

Deloitte Touche Tohmatsu | Consultant
September 2019 – December 2019 | Bangalore, India
- Application Security Testing
- IoT security Testing
- Wi-Fi Fuzzing
- Hardware Security Testing

L & T Technology Services | Security Engineer
Jan 2019 – September 2019 | Bangalore, India
- Application Security

Attify Mobile Security Pvt Ltd | IoT Security Researcher
May 2018 – Nov 2018 | Bangalore, India
- Generated some of the modulation types to send data from Arduino Nano, and then receive it using GNU radio and Gqrx to decode it to the original data.
  Tools Used – Arduino nano, Gqrx, Hack RF, GNU Radio-companion, Inspectrum, Audacity
- Has extensive experience in using BTLEjuice for the security of BLE Smart Bulb.
- Used Attify Badge to explore JTAG and extract the firmware of various IoT devices.
  Tools & Technologies hands-on with:-
  Bluetooth tool – Hcitool, Gatttool, characteristics, Services, Bleah, Bluetooth HCI snoop log.
  Contribution
    - Performed various attacks on IoT Smart Devices.

Indian Institute of Technology, Mandi | Project Associate (IMPRINT Project)
June 2017 – May 2018 | Himachal Pradesh, India

- A micro fluidic-based point of care testing device for measuring urine albumin using a novel organic dye

Indian Institute of Technology, Indore | Research Staff (Newton Bhabha Programme)
June 2016 – Feb 2017 | Madhya Pradesh, India

Technologies Expertise

- ✓ Radio Waves Hacking
- ✓ Firmware Analysis
- ✓ BLE(Bluetooth Low Energy) Exploitation
- ✓ Vulnerability Assessments
- ✓ Hardware Hacking
- ✓ Web Security

Key Skills

- ✓ C ,Python
- ✓ Environment –Linux,windows,Git
- ✓ Open Source Tools – Brupsuite, Wireshark, Nmap
- ✓ Development Board – AVR(Atmega8), Arduino, Esp8266 Raspberry Pi
- ✓ Protocols-MQTT,TCP,HTTP,HTPS,Zigbee

Education

- ❖ **Kurukshetra University – 2017:**
  B.Tech in Electronics & Communication
  CGPA score – 7.0
- ❖ **Senior Secondary – 2013:**
  UPMSP board with score 83%
- ❖ **Secondary – 2011:**
  UPMSP board with score 74.9%

Internship

Cutting Edge Medical Devices Pvt Ltd, Delhi
Project
- IR based optoelectronic device for measuring displacement and timer Circuits.

Department of Science & Technology, Delhi
Project
- Monitoring the health of UAV in Ground Computer using Mission Planner.

Patent

A system for detecting the biological molecule using the micro fluidic technique.
Application number: 201811047739
Submit Date: 17/12/2018
Status: Pending

Achievements

- Speaker at Red Team Cyber Security Summit 2019,kerala.
- Speaker at IoT Show 2019.
- Demonstrated Industry Smart ware Project in IMTEX 2017-Machine Tool Exhibition, Bangalore.
- Won a National Technical Institutes Competition Smart Manufacturing-Industry Smart-ware At Manufacturing Today Conference & Awards 2016 organizes by ADITYA BIRLA GROUP.
- Secured 1st position in LIVE-Project competition on the occasion of "TechInvent2k16" at Chandigarh Group of College, Landran.
- Secured 2nd position in Circuit-Mania competition on the occasion of "TechInvent2K16" at JMIT Radaur.
- Secured 2nd position in RAM-ROM competition on the occasion of "TechInvent2K16" at JMIT Radaur.
- Secured 1st position in Business Plan Competition conducted by Entrepreneurship Development Cell at JMIT Radaur.
- Secured 3rd position in Project Exhibition competition on the occasion of "SwarooMM-2017 organized by Maharishi Markandeshwar University Ambala.
- Demonstrated project in Industrial Exhibition on the occasion of "TechInvent2017" organized by Chandigarh