

# Kannan Giridharan

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## OBJECTIVE

To secure a challenging position in a reputable organization to expand my learnings, knowledge, and skills

## EDUCATION

### B. Tech Computer Science & Engineering

Karunya Institute of Technology and Science (KITS)

12<sup>th</sup> grade, Sri Vijay Vidyalaya

10<sup>th</sup> grade, Sishya School

CGPA - 7.8/10

95%

CGPA - 8.6/10

Jul 2019

Apr 2015

Apr 2013

**RESEARCH INTERESTS** - Cyber Security & Penetration Testing, Networking & Virtualization, Hardware & Firmware Testing

**COURSEWORK TAKEN** - Computer Networks, Information Security, Cryptography & Network Security, IoT Security

## FREELANCE WORK EXPERIENCE

### Security Researcher, Hackerone

Jun 2019 till date

- Identifying bugs across web apps from organizations, such as stripe, Ola, Uber, Facebook, Twitter, etc.
- Applying web app pentesting techniques such as recon, enumerate, and exploit using factors such as XSS, XXE, SQLi and reporting bugs on a web app

## INTERNSHIPS

### Information Security Trainee, TVS Motor Company Ltd.

May 2018 - Jun 2018

#### Phishing Simulation using Email Link

- Created website using PHP, HTML, CSS & JavaScript; enabled credential-access to ~700 employees in IT Department & retrieved employee information (phone number, system number & email address) through phishing site
- Created awareness of communication networking among employees via cybersecurity campaign; performed internal network reconnaissance and tested website for vulnerabilities

## RESEARCH EXPERIENCE

### UNDERGRADUATE PROJECT

#### Project Trainee, Indian Space Research Organization (ISRO)

##### CCSDS Simulator for Nano mission Satellite

Dec 2018 - Jun 2019

- Learnt satellite framework & communication using CCSDS concepts undertaken by International Organization for Space Networking
- Created simulator tool using Python and advanced libraries such as schedule and socket with in depth communication & cryptographic libraries
- Tested simulator in 2 systems to exact need of processing satellite communication & telemetry; processed telemetry, tele-command, payload data on simulator to obtain data for future missions

## COURSE PROJECTS

### Baserve: SSH Server using Paramiko with any OS Compatibility

May 2018

- Connected an SSH server in network & developed a Python script to enable SSH server in any operating system
- Tested the software in a network for the execution of SSH server in host or victim system

### Sym-crypt

Feb 2018 - Mar 2018

- Studied principles of Cryptography; coded the encryption using Python & developed an application to demonstrate its functions; recorded encryption result for any given input and decrypted it

### Pwnetwork

Jun 2018

- Developed necessary tools for network penetration testing; coded Network tools, packet analysis, proxy tools using Python & networking libraries
- Tested the software & yielded result of sniffing & spoofing of network traffic

## INDEPENDENT PROJECTS

### Hacking-bot

Aug 2019

- Created a hacking & pentesting bot with python, Database, Iot Sim & Raspberry Pi to execute malicious and network testing remotely through Email and SMS

### Linux Rootkit

Aug 2019

- Developed a Linux rootkit in Linux environment to make a covert channel & gain access of victim system

**Nd00m3r****Jun 2019**

- Created a pentesting WIFI router using tools such as binwalk and python to make a rouge access point that can capture the handshake and take over the Wi-Fi network

**W1fey****Jul 2019**

- Created a Wi-Fi automating tool in shell & Python script for hacking & reconnaissance; learnt bash, Python and Wi-Fi tools like Nmap, TShark, etc.
- Executed a Wi-Fi script to reduce the use of human interaction with a system by attacking Wi-Fi network

**IoTak****Jul 2019**

- Created a custom IoT device firmware for hacking using beagle board ARM, Linux kernel & rootkits
- Developed a custom Linux OS to be installed in beagle bone board and IOT network; hacked & enabled device to install without any identification of IoT firewall

**PRESENTATIONS:** Presented a paper on “Modular Logistic Function for Rijndale Encryption Key Transportation” at International Conference on Emerging Trends and Innovations in Engineering and Technological Research, Kochi, Jul 2018

**TECHNICAL SKILLS**

**Operating Systems:** Linux, Kali, Microsoft, macOS, Ubuntu

**Languages:** Python, JavaScript, HTML 5, CSS, Shell, PHP, React, Node.

**Database and Client/Server Technologies:** MySQL, SQLite.

**Software Tools:** LibreOffice, Eagle CAD SOFT, Fusion 360, Arduino IDE, Visual Studio Code.

**Networking:** VirtualBox, VMware, GNS3

**Web Applications:** Electron, Node.js, React, mongoDB,

**Hardware:** Arduino, Raspberry Pi, 3D Printer.

**CERTIFICATION**

- Cryptography, Cybrary, Dec 2017
- Web Application Penetration Testing Cybrary, Aug 2017
- Python for Pen tester Cybrary, Jun 2017
- Social Engineering and manipulation, Cybrary, May 2017
- Post Exploitation Hacking Cybrary, May 2017
- Advanced Penetration Testing, Cybrary, Feb 2017

**HACKATHONS**

- Organized Capture The Flag & taught basic web app hacking to 20 hackers, Sep 2019
- Participated in hackerone\_ctf organized by HackerOne, Jun 2019
- Participated in Hack The Box organized by HackTheBox.eu Nov 2017

**AWARDS AND EXTRA-CURRICULAR ACTIVITIES**

- Participated in Megaplay organized by KITS; created props for the play (Nov 2018) & was responsible for stage management (Nov 2017)
- Member, Organizing Committee, Karunya Evangeline Memorial Tournament: Organized meal arrangements for 1000 participants, Oct 2017
- Received Certification of Participation in a Marathon conducted by KITS, Feb 2016
- Received the T-SUDA Award for Excellence for scoring high percentile in 12<sup>th</sup> grade with a grant of INR 5000, Jul 2015

**VOLUNTEER EXPERIENCE**

- **Volunteer, Environmental Awareness, KITS:** Helped in distributing food packages at a nearby village to ~ 50 people, Feb 2017
- **Volunteer, Youth Red Cross Club, KITS:** Organized awareness drives & created posters on blood donation, road safety. Aug 2016 - Nov 2016
- **Volunteer, National Service Scheme (NSS):** Participated in cleanliness drives, taught 20 underprivileged students of Alandurai Govt. School, Jun 2015 - Jul 2016

**LANGUAGES:** English, Tamil (Read/Write/Speak)