SANTOSH KUMAR CHEJARLA

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Education

Amrita Vishwa Vidyapeetham   **2017 − 2021**
B.Tech in Computer Science and Engineering, CGPA: 9.44   *Amritapuri, India*

Experience

Cisco Systems   **Aug. 2021 − Present**
Site Reliability Engineer   *Bangalore, India*
- Automating and troubleshooting Cisco's on-prem OpenStack Cloud services to improve the availability, scalability, reliability, and security of the Cloud.
- Building ChatOps to serve the clients of Cisco's on-prem OpenStack Cloud that automates the Cloud deployments and bug fixes.

Cisco Systems   **Jan. 2021 − Jul. 2021**
Technical Undergraduate Intern   *Bangalore, India*
- Developed a tool that collected capacity & utilization metrics of Cisco's on-prem VMWare Cloud and provided visualizations on Tableau.
- Fixed and containerized "RunOn-Metadata", a tool that collects and presents the metadata of Cisco's on-prem Openstack Cloud.

Ben-Gurion University of the Negev   **Jul. 2019 − Aug. 2019**
Data Mining and Business Intelligence for Cyber Security, Summer Student, Grade: 87%   *Be'er Sheva, Israel*
- Was awarded a scholarship of 92% on the entire program.
- Worked under the guidance of Dr. Yisroel Mirsky.
- Extracted top features that were affecting the output of a pre-built Phishing detection ML model using SHapley Additive exPlanations (SHAP).

Projects

Auto-Car Mk I & II | *OpenCV and Arduino*   **2020**
- Built an Arduino based autonomous radio-controlled (RC) car.
- Developed the classification algorithm using OpenCV Python library.

Pandemic outbreak prediction | *Complex Networks Analysis*   **2020**
- Proposed a new approach for predicting a pandemic outbreak in a community based on Social Networks.
- Introduced three new parameters for predicting the outbreak based on the "Average Degree" and "Degree of Separation" of the networks in the community, and the "R0" value of the pandemic.

eth_courier | *Blockchain*   **2020**
- Developed a courier management webapp that supports Ether payments.
- Deployed the application on Ganache - personal Ethereum blockchain.

CSE-B Asst. | *Telegram bot*   **2018**
- Developed a Telegram bot that assisted my classmates to track their attendance, classes etc.

Publications

WebSecAsst - A Machine Learning based Chrome Extension | *ICCES 21*, [IEEE link]   **2021**
- Built a Chrome Extension that assists the user while browsing the internet by identifying malicious websites and files while assuring 100% privacy.

A Cost-Effective Framework for Developing and Testing Autonomous RC Cars | *WiSPNET 21, [IEEE link]*   **2021**
- Proposed a cost-effective framework for building autonomous RC cars using wireless communication between car and laptop.

Dimensionality Reduction based on SHAP | *ICCSP 20, [IEEE link]*   **2020**
- Proposed a new way to reduce the dimensionality of a dataset based on the game-theoretic approach of SHAP.

Co-Curricular

Team bi0s | *Amrita Vishwa Vidyapeetham Academic Capture The Flag (CTF) Team*　　　　　**Jan. 2018 – Jan. 2019**
- Worked on solving Web Exploitation challenges and contributed to the teams success in many CTFs.
- Team bi0s is ranked number-1 CTF team in India and among top 50 across the world for the past 4 years as per ctftime.org.

InCTF | *Challenge developer and Organizer*　　　　　**2018**
- Developed Web Exploitation challenges and organized the CTF event.
- InCTF is a National level CTF conducted by team bi0s.

InCTFj | *Challenge developer and Organizer*　　　　　**2018**
- Developed Web Exploitation challenges and organized the CTF event.
- InCTF Junior is the first school CTF exclusively for Indian school students conducted by team bi0s.

Bsides CTF Delhi | *Challenge developer*　　　　　**2018**
- Developed Web Exploitation challenges for the CTF event.
- BSides Delhi CTF was sponsored by HackerOne and was hosted by team bi0s, as a part of the BSides conference held in Delhi.

Achievements and Certifications

SecCon APJC 2021 CTF | *Online 2nd* | *Participated as a part of team newbies101*　　　　　**2021**
- SecCon APJC 2021 CTF is an online jeopardy CTF conducted by Cisco exclusively for Cisco's employees.

Vidyut CTF | *On-site 1st* | *Participated as a part of team newbies101*　　　　　**2019 & 2020**
- Vidyut CTF is an on-site jeopardy CTF conducted by Amrita Vishwa Vidyapeetham.

Google Associate Cloud Engineer | *Certification*　　　　　**2019**
- The Associate Cloud Engineer exam assesses the ability of developers to operate, configure and deploy Cloud-based solutions on Google Cloud Platform.

Hack.lu CTF | *India 1st, On-site 1st, International 13th* | *Participated as a part of team bi0s*　　　　　**2018**
- Conducted by FluxFingers team as part of HackLu Conference at Ruhr-Universität Bochum, Germany.

CSAW CTF Qualification Round | *India 2nd, International 12th* | *Participated as a part of team bi0s*　　　　　**2018**
- Conducted as a part of Cyber Security Awareness Week by New York University.

HackIT CTF | *India 1st, International 4th* | *Participated as a part of team bi0s*　　　　　**2018**
- Conducted as a part of HackIT4.0 conference, Kyiv, Ukraine.

ISITDTU CTF 2018 Qualification Round | *India 1st, International 3rd* | *Participated as a part of team bi0s*　　　　　**2018**
- ISITDTU CTF 2018 is geared more towards university and high school students organized by Duytan University.

Swamp CTF | *India 1st, International 5th* | *Participated as a part of team bi0s*　　　　　**2018**
- SwampCTF is a student-run competition and hosted by the University of Florida Student InfoSec Team (UFSIT).

Interests

- Cybersecurity, Cloud computing, Machine Learning, Mechatronics.

Technical Skills

Languages: Python, Java, C++, HTML, PHP, MySql.
Tools & Technologies: Burp suite, Wireshark, Docker, Kubernetes, Git, Ansible, Amazon Web Services, Google Cloud Platform, VMWare vCenter, OpenStack.

Social Outreach

Nayi Soch | *Volunteer*　　　　　**2019**
- Organized educational and environmental awareness campaign at MPUP School, Kondaveedu, India.
- Hosted a website to collect donations for the school.

bi0s Meetups | *Member of the organizing team*　　　　　**2018**
- Organized a Cybersecurity awareness meetups at Kochi and Amritapuri, India.