Gabriel Cruz

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RESEARCH AND EDUCATION

UNIVERSIDADE DE SÃO PAULO
BS in Computer Science | ICMC
Jan 2016 - Jan 2021 (expected) | São Carlos, Brazil

UNIVERSITÉ DE BRETAGNE OCCIDENTALE
Research Exchange Program | UFR Sciences
Jan 2020 - July 2020 (expected) | Brest, France

- Invited researcher on Social Engineering Attacks
- Helped organizing several parties and visibility events for hundreds of people as part of the West-Up group for the LGBTQ+ community of Brest

UNIVERSIDADE DE SÃO PAULO
Network Security Research | Monography
Jan 2019 - July 2019 | São Carlos, Brazil

- Exploited two DoS attacks in MQTT-based networks: SYN Flood and Sybil Subscription Flood
- Performed a study case of these attacks on MQTT networks. Provided proof of concept code for the attacks, one of the firsts of its kind

WORK EXPERIENCE

GANESH SECURITY
Computer Networing Group Lead
Jan 2019 - Present | São Carlos, Brazil

- Proactive member ever since subscription process, quickly moved up to network security group lead
- Organized and gave dozens of talks on topics such as DoS and MITM attacks, IP spoofing and phishing techniques
- Developed several Capture The Flag (CTF) challenges on computer networking security (protocols, wifi, handshakes, etc.) for over 150 new members

QUERO EDUCATION
Software Engineering Trainee | Quero Bolsa
Jul 2018 | São José dos Campos, Brazil

- First amongst over 100 candidates
- Developed a real-time statistics and data visualization web app using Elixir's Phoenix web framework
- Deployed the application as a real-time statistics dashboard seen daily by every employee

UNIVERSIDADE DE SÃO PAULO
Teaching Assistant | CS Department
Jan 2017 - Jul 2017 | São Carlos, Brazil

- Awarded a scholarship for working as a teaching assistant in the CS introductory course
- Developed and graded coding assignments in C about fundamental programming concepts such as variables, pointers, functions, data structures and algorithms
- Guided and helped in the learning process of more than 120 students

SKILLS

TECHNICAL | Programming and Tools
Over 2 years:
Python • C • Shell script
Linux/Unix • Git • Vim/Neovim • Numpy
Over 6 months:
Go • C++ • Elixir • Javascript • Java • Assembly
GDB • Wireshark • BeautifulSoup

NATURAL LANGUAGES
Portuguese (native)
English (TOEFL iBT 107/120) • French (DELF B2)

PROJECTS

IPV6 WORKSHOP | Slides, Material
- IPv6 workshop for more than 30 students and professors at Universidade de São Paulo
- Simulated realistic scenarios and developed practical exercices to reinforce the learning process
- Covered topics such as history of IPv6, public, private, unicast and multicast addresses

DOS ATTACKS WORKSHOP | Slides, Material
- Gave a course on DoS attacks for more than 50 people at the biggest computer science undergraduate event of the country: Semcomp
- Covered amplification techniques, botnets, peer-to-peer networks, TCP and UDP flooding, etc

HEROES BUILD SCRAPPER | Github Repo
- Python webscraper for a MOBA game informations
- Gets content from a website using BeautifulSoup and displays it in-game through a Qt window
- Contributed with 7 other people through GitHub and participated in Digital Ocean's Hackthoberfest program for Open Source development

VOLUNTEER WORK

UNIVERSIDADE DE SÃO PAULO | Visit Monitor
Guided more than 30 high school students throughout an entire afternoon, going through most of the laboratories, classrooms and the library of the university campus

HAPPY CODE | Monitor for Children
Led the kids through the process of developing a mobile app: brainstorming, paper designing, usability tuning, and finally developing an elevator pitch

METHALURGIC SYNDICATE | Parkour Coach
Free introductory Parkour session for more than 20 children in need. Taught about warm-up, cool-down and stretching exercises