

# 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 NETWORKING 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 INTERN | QUERO BOLSA

Jul 2018 - Aug 2018 | São José dos Campos, Brazil

- Only selected winter intern 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 everyone in the company

### 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 (DEL F B2)

## PROJECTS

### IPV6 WORKSHOP MENTOR | [SLIDES](#), [MATERIAL](#)

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

### DOS ATTACKS WORKSHOP MENTOR | [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 SCRAPER | [GITHUB REPO](#)

- Python webscraper for MOBA game
- Gets content from a website and displays it in-game using BeautifulSoup and the Requests library
- Contributed with 7 other people through GitHub and participated in Digital Ocean's Hacktoberfest 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