

# Gabriel Cruz

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## EDUCATION & RESEARCH

### B.S. IN COMPUTER SCIENCE

UNIVERSITY OF SÃO PAULO | [ICMC](#)

Jan 2016 - Jan 2021 (expected) | São Carlos, Brazil

### RESEARCH EXCHANGE PROGRAM

UNIVERSITY OF WESTERN BRITANNY | [UFR SCIENCES](#)

Jan 2020 - June 2020 | Brest, France

- Invited international cybersecurity researcher
- Developed a Social Engineering framework for conducting practical and safe phishing experiments
- Organized events for hundreds of people from the LGBTQ+ university West-Up extracurricular group

### NETWORK SECURITY RESEARCH

UNIVERSITY OF SÃO PAULO | [MONOGRAPH](#)

Jan 2019 - July 2019 | São Carlos, Brazil

- Implemented and compared two DoS attacks in MQTT networks: SYN Flood and Sybil Subscription Flood
- Provided proof of concept code for the attacks, one of the first studies of the kind in MQTT networks

## WORK EXPERIENCE

### OPEN SOURCE ENGINEER INTERN

MAJOR LEAGUE HACKING | [MLH FELLOWSHIP](#)

June 2020 - Aug 2020 (expected) | Remote

- Global summer program sponsored by Github Education to contribute to Open Source projects
- Selected over 20.000 other candidates for the first edition ever of the program
- Contributed to Python and Golang projects: Flask, Golang, Wekzeug, Beego, Httpie, and others
- Worked in the most global group on the entire fellowship, with people from 10 different countries

### NETWORK SECURITY GROUP LEAD

UNIVERSITY OF SÃO PAULO | [GANESH SECURITY](#)

Jan 2019 - June 2020 | São Carlos, Brazil

- First member to become a group lead (in 3 months)
- Gave dozens of talks to over 50 members on DoS and MITM attacks, IP Spoofing, among others
- Developed several Capture The Flag challenges on computer networking security (protocols, WiFi, handshakes, etc.) for over 150 new members

### SOFTWARE ENGINEERING TRAINEE

QUERO EDUCATION | QUERO BOLSA

Jul 2018 | São José dos Campos, Brazil

- Selected among 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 hundreds of employees

## PROJECTS

### IPV6 WORKSHOP LEAD | [SLIDES](#) • [NOTES](#)

- IPv6 workshop for more than 30 students and professors at University of 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

### HEROES BUILD SCRAPER | [GITHUB REPO](#)

- Python web scraper for a MOBA game information
- Retrieves content from a website using BeautifulSoup and displays it in-game through a Qt window
- Contributed with other developers on GitHub through DigitalOcean's Hacktoberfest

### SECURITY WORKSHOP LEAD | [SLIDES](#) • [NOTES](#)

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

## SKILLS

### TECHNICAL | PROGRAMMING AND TOOLS

#### OVER 2 YEARS:

Python • C • Shell scripting  
Linux/Unix • Git • Vim/Neovim • Numpy

#### OVER 6 MONTHS:

Go • C++ • Elixir • JavaScript • Java • Assembly  
GraphQL • Flask • FastAPI • Pytest • Beego

### NATURAL LANGUAGES

Portuguese (native)

English (TOEFL iBT 107/120) • French (DELFB2)

## AWARDS & DISTINCTIONS

- **MLH Fellowship:** Selected among 20.000 candidates at global internship
- **Fireshell CTF:** 2<sup>nd</sup> place among 1000 teams
- **Interhacks:** 3<sup>rd</sup> place among 30 teams at national hackathon

## VOLUNTEER WORK

- Monitor at free university visit for over 50 high school students
- Mentored 10 kids at a free app development hackathon for children
- Parkour coach for over 20 children in need