

# GABRIELA SURITA

## ABOUT

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## PROGRAMMING LANGUAGES

- PYTHON (PROFICIENT)  
C/C++ (ADVANCED)  
JAVA  
JAVASCRIPT  
PHP  
R  
RUST  
SHELL (BASH, CSH, ZSH)

## TECHNOLOGIES

- APACHE  
DJANGO  
FLASK  
FPGA  
GIT/SVN  
JQUERY  
METASPLOIT  
MYSQL  
OPENAPI  
OPENSSE  
POSTGRES  
PYRAMID  
TRAVIS/COVERALLS  
SPARK MLLIB  
SYMPHONY PHP  
WIRESHARK

## LANGUAGES

- PORTUGUESE (NATIVE SPEAKER)  
ENGLISH (FLUENT)  
SPANISH (FLUENT)  
GERMAN (READ AND WRITE  
WELL, SPEAKS POORLY)

## SUMMARY

Hi! I'm Gabriela Surita. I'm a senior year computer engineering student at University of Campinas and certified part time software developer. My best skill is to be able to combine practical, self-taught, and quick hacking solutions with software engineering good practices.

## EXPERIENCE

### SOFTWARE FREEDOM CONSERVANCY - MOZILLA 12/2016 - 03/2017 OUTREACHY INTERN

Conservancy is a non-profit organization that promotes Outreachy - An internship program for people underrepresented in the computer science and free software community.

- Mainly worked with an Open Source distributed HTTP storage service - Kinto.
- Documented, tested and patched some inconsistencies in the Kinto API.
- Worked with OpenAPI/Swagger documentation standards writing automated documentation tools and API compliance test environments.
- Directly contributed to more than a dozen open software repositories.
- Mastered continuous integration, TDD, and other free software development techniques.
- Submitted patches to large projects such as Pyramid, Colander and Swagger.
- Worked with a diverse distributed team.

### MESONN INSTRUMENTS 04/2016 - 08/2016 CONTRACT EMBEDDED SYSTEMS DEVELOPER

Mesonn Instruments is a startup that produces digital measuring instruments for synchrotron laboratories and general purposes.

- Communicating pure FPGA designs with Ethernet.
- Writing Verilog/VHDL Hardware specifications.
- Using embedded Linux and in C/C++.
- Reimplementing network protocols on highly constrained environments.

### LASCA UNICAMP - INTEL 12/2013 - 06/2016 JUNIOR RESEARCHER

LASCA stands for Laboratory of Security and Cryptography and is the main research facility for digital security from University of Campinas. LASCA had a partnership with Intel that included scholarships for Junior researchers on Intel related projects.

- Worked with cryptographic hardware primitives designs such as TRNGs and PUFs.
- Studied with Machine learning based attacks on security primitives.
- Authored two articles, one for an international conference, about PUF Security properties.
- Contributed to other research projects implementing efficient hardware-based cryptosystems on topics like electronic voting and low cost IoT authentication.

### 3E UNICAMP 04/2013 - 09/2013 CONTRACT WEB DEVELOPER

3E Unicamp is a Junior enterprise that provides consulting services from teachers and skilled students on the fields of Electrical and Computer Engineering.

- Worked as a contract software developer building websites and webservices in Django.
- Wrote Front-End applications using Javascript, CSS and HTML
- Used continuous integration and Test Driven Development.

### SPAÇO 03/2012 - 03/2013 SOFTWARE DEVELOPER

Spaço is a local advertisement company focused on Web solutions for small businesses.

- Developed Applications and WordPress extensions in PHP.
- Managed Apache Servers and MySQL databases.
- Co-managed a plural team mainly composed by designers.

VOLUNTEER

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**PYLADIES BRAZIL**  
TEACHER

04/2015 - PRESENT

Global movement to teach and encourage women to follow careers in computer science.

- Teach computer science introduction and machine learning courses to women and teenagers using Python.

EDUCATION

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**UNIVERSITY OF CAMPINAS**  
BACHELOR IN COMPUTER ENGINEERING

02/2013 - PRESENT

**IMPACTA**  
CERTIFICATE PROGRAM IN SOFTWARE DEVELOPMENT

02/2009 - 11/2011

PUBLICATIONS

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**CYLINDRICAL RECONVERGENCE PUF**  
PROCEEDINGS OF THE 19TH EUROMICRO SYMPOSIUM ON DIGITAL SYSTEMS DESIGN

07/2016

Propose a new architecture of Physical Unclonable Function that shows a better trade-off between hardware footprint and resistance to machine learning modelling attacks.

**OPEN SOURCE PLATFORM FOR DIGITAL SIMULATION OF DELAY BASED PUFs**  
PROCEEDINGS OF THE 18TH UNDERGRADUATE SCIENTIFIC RESEARCH CONGRESS OF UNICAMP

11/2015

Propose and evaluate a digital simulation model for Physical Unclonable Functions hardware security primitives.