

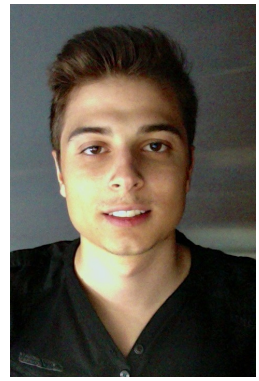
# Álvaro Felipe Melchor

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## EDUCATION

2009-2015 **M. Sc. Telecommunication Engineering (Computer Science & Electrical Engineering)** University of Alcalá

- **Specialization:** Network Architecture (TCP/IP), Computer Architecture and Security.
- **Master Thesis:** Advanced Architecture to Validate TLS Certificates in Internet to avoid MITM - <https://github.com/alvarofe/cassle>

January 2015 **Speaker on Ciberseguah** Detección de Ataques MITM en TLS University of Alcalá - <http://ciberseg.uah.es/>

## COURSES

January 2015 (3 hours) **OSINT in SCADA and Security Elements** University of Alcalá

- OSINT techniques applied to SCADA systems and network elements used in critical infrastructure such as nuclear power plants. A review of methods for obtaining information on SCADA and industrial networks, ending with several secure configurations from the convergence of IT and OT.

January 2015 (4 hours) **Pentesting in Windows** University of Alcalá

- Recreation of a stage to perform penetration testing against a typical Windows-based business environment. Presentation of basic techniques for this type of scenario and an audit step by step.

January 2015 (15 hours) **Social Skills** Instituto Vox

- Public speaking and active listening.

## EXPERIENCE

2014 (January-October) **Intern Telefónica I+D**

- Intern in Telefónica I+D to work in the [netide project](#). The aim of the project is to provide an Eclipse-like IDE and associated tools to support the network design cycle in SDN environments. My tasks were test different PoC with different controllers: Pyretic, Ryu, OpenDaylight, Beacon, Floodlight; on Openstack/mininet to extract a common architecture to see advantages and disadvantages of each approach to extrapolate it to the project. I also started implementing odl-shim <https://github.com/fp7-netide/Engine/tree/master/odl-shim>

October 2014 - January 2015 **Collaboration in GIST**

- I was collaborating in GIST (Grupo de Ingeniería de Servicio Telemáticos) from UAH, developing my Master Thesis with Enrique de la Hoz De la Hoz.

## PROJECTS

### CASSLE

- Tool written in Python to improve the verification process of TLS's certificates that are exchanged during the handshake using state of the art techniques with the aim to spot MITM attacks. <https://www.github.com/alvarofe/cassle>

### GOCASSLE

- Given limitations of Python and lessons learned from CASSLE, I am currently developing a distributed system that would be responsible for "pin" the network. It'll say what certificates should see the network. This project is being written in Golang for ease of writing concurrent programs thanks to goroutines and channels. <https://github.com/alvarofe/gocassle>

## TECHNOLOGY

- **Programming Languages:**
  - Basic: Node.js, Ruby, Golang, Java y LaTeX.
  - Intermediate: Python, C/C++
- **Tools:** Radare2, gdb, Metasploit, SET, Volatility, Eclipse, IntelliJ.
- **SOs:** Linux, Mac OS X, Windows.

## PERSONAL SKILLS

### Languages:

- **Spanish:** Native.
- **English:** Upper intermediate - B2.

**Objectives & Motivation:** I am passionate about security, especially how protocols work, ethical-hacking, reverse engineering and UNIX based operating systems. But not only security but also agile methodologies work, design patterns and algorithms. In short, everything related to software development and security field. In my personal page you will see my modest research articles <http://alvarofe.github.io/>.

**Profile:** I am interested in increasing my experience in fields related to my career. I am responsible, creative and always I have hunger of knowledge that's why I read a lot to try understand everything around me. I am very curious and autodidactic. I take challenges as a way of overcoming and learning.