

# Artur Ataíde | Curriculum Vitae

Genève, Suisse

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*"Measuring programming progress by lines of code is like measuring aircraft building progress by weight." - Bill Gates*

Graduated Software Engineer completing the Master's Degree Thesis on Informatics Security Engineering.

## Work Experience

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- Blue Infinity**

*Consultant Software Engineer*

Genève

June 2018– Actual

In my Blue Infinity experience so far I work as a Software Engineer at client's office. The goal of this project is to re-design a legacy application, producing it accordingly for nowadays industry standards. Is also a goal of the project to develop new functionalities.

**Technical Environment**

Following the Scrum methodology, with one week sprints I worked with the fallowing technologies:

  - NodeJs, Angular 7 and CSS3 to build the application Frontend;
  - Create a RESTApi, with Python (Django), to serve the data of legacy application;
  - Re-design some aspects of the MySQL Database, maintaining the production data integrity.
- Weissmaler Portugal**

*Full-Stack Developer, Software Security Engineer*

Porto

October 2017–June 2018

I am part of Back-end development team, being one of the responsible for RESTFull API Design; designer of security policies that enable a proper communications between Frontend and Backend; and code review. We work mostly but not only with Ruby language supported by Rails framework, PostgreSQL database and GraphQL in order to communicate with the Frontend. We use GIT repository and follow the Test Driven Methodology.

**Thecnical Environment**

Following the Scrum methodology, with two weeks sprints i worked with the fallowing technologies:

  - Receive the design specifications from team designers (in PSD or AI file type) and program it in HTML, CSS and Javascript.
  - Program the client side application using Angular framework, receiving the data via the RESTApi.
  - Build the RESTApi in Ruby and Ruby on Rails in order to send content to the frontend with Test Driven Development approach.
  - Design the Database model for new requisites from Project Manager.
  - PostgreSQL database administration.
- Apibeton**

*Founder*

Porto, Geneva

August 2015–Present

**Project:**

- Founded a startup project that tracks and monitors assets from companies in the field of concrete transport and production;
- All systems were tested against the latest security flaws and penetration techniques used by malicious exploits;
- Server management and monitorization in real time;
- Won the EY (former Ernst & Young) Entrepreneurship contest 'Tech Your Life.

**Technical Environment:** Python's Django Framework, RabbitMQ, Test Driven Development, Angular4, CSS, Javascript, proprietary map tracking system, proprietary tracking hardware device with the latest GPS and GSM chips, Apache Server with Postgres SQL, LinuxOS Server, Git Repository with test integration.

**Hubel Indústria de Água****Faro**

- *Chief Software Engineer and Tech Team Leader*

*October 2015–June 2016***Project:**

- Developed a product that can manage Farms (Irrigation, Environmental Control, etc), Smart Cities (water and electric meters) and Industry (Everything following the IoT's concept);
- Research and choose technologies and methodologies to use and to coordinate the tech team in order to develop a strong and reliable application;
- This application included a Desktop and Mobile App, IoT devices and sensors all over the field and SCADA systems that will help to control and retrieve all the needed data from equipment;
- Lead and managed a team;
- Implemented and tutored team members using agile methodologies, code versioning among other software development paradigms.

**Technical Environment:** Python, Django, Angular 1.5 and Bootstrap for the Desktop App and CSS, Javascript. Native Android Programming with Java for the Mobile app. PLC and SCADA devices programming for the field equipment. Git Repository with test integration.

**Instituto Politécnico de Beja****Beja**

- *Assistant Professor*

*January 2015–October 2016*

I was invited to be an Assistant Professor and teach classes in the Software Development, Databases, System and Network Administration and also Cybersecurity.

The UCs that I taught were the following:

- Introduction to Programming (Java);
- Databases (SQLite, MySQL);
- Integrated Project;
- Linux System Administration;
- Project and Analysis of Security Policies;
- Active Network Equipment Management;
- Analysis and Project of WANs.

**DigitalWorks****Évora**

- *Open Source and Mobile Developer*

*August 2014–December 2014*

It was my first experience as a software developer in a company. I worked as a FullStack developer with open source technologies and as an Android native apps developer. After completing successfully some project I was asked to do some retained services in a UK company called FoodIt.

In this experience I had the opportunity to get in contact with a lot of languages in a professional context such as Java, C#, JavaScript, PHP, SQL and a lot more.

## Education

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### Academic Qualifications.....

- **Masters in Informatic Security Engineer** **Instituto Politécnico de Beja**  
*UbiNET Cybersecurity Researcher* *2014–Present*
  - Software Security;
  - Penetration Tests;
  - Dynamic Programming Languages;
  - Computer Forensics;
  - Cryptography and Cryptanalysis;
  - Information Systems Security;
  - Advanced Development of Exploits;
  - Biometric Technologies;
- **Informatic Engineering Degree** **Instituto Politécnico de Beja**  
*UbiNET Cybersecurity Researcher* *2009–2011*
- **Functional Programming in Scala** **École Polytechnique Fédérale de Lausanne, Suisse**  
*Lecturer: Martin Odersky* *September 2013–November 2013*
- **Music Technologies** **Almodôvar**  
*Learn the Process of music production and masterization.* *June 2011–August 2011*

## Technical and Personal skills

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- **Programming Languages:** Proficient in: Python, Java, C#, PHP, Ruby, C, SQL, Arduino, CSS (Sass and Less), Javascript, .NET, Android SDK.  
Also ability to program in with: Assembly, VBA, VHDL, SCALA, Ladder.
- **Markup Languages:** HTML, Markdown, XML, YAML, TeX.
- **Frameworks:** Django, Flask, Tornado, Rails, Laravel, AngularJs/7, NodeJs, Bootstrap, Materialize.
- **Industry Skills:** Apache, MySQL, PostgreSQL, SQLServer, NGinx, MVC Paradigm, Software Design, Security Policies, Software Security, Penetration Testing, Test Driven Development, RESTful and SOAP APIs.
- **Code Version Control:** Experienced user of GIT, SVN and Mercurial.
- **System Administration:** Both Windows Server and Linux. Great knowledge of MacOS.
- **Soft Skills:** Good communication skills and customer service, acquired through:
  - Classes taught in IPBeja;
  - Invited Speaker in several talks at IPBeja;
  - Outsourcing Jobs;
  - Apibeton Clients' Management;
  - Pitches from product presentation and startup contests.
- **Organizational / Management skills:** Project Chief Experience, design projects from scratch to client delivery, founder at Apibeton.
- **Languages:** Mother tongue: Portuguese. Fluent: English.

## Interests and extra-curricular activity

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- I am a very curious person and am willing to learn about anything, so I enjoy a lot to read, watch documentaries and talk with people from another backgrounds.  
My first experience coding was at 10 years old, in my father's old Pentium, where I learn Visual Basic. He is himself a Software Engineer. I grew up shifting from playing football to coding.
- I also like sports a lot and I played federated soccer until my 21 years old, now it's only for fun. I also like to play tennis, run and my new passion: skateboarding.
- When I want to relax I always like to take a long walk until the sunset, go out with my friends or simply watch some movies or tv shows.

## Awards, Publications and Projects

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### Awards.....

- **Winner of EY's Entrepreneurship Contest:** *'Tech Your Life - 2016 4th Edition'*  
Winner of the EY's (former Ernst & Young) nation-wide contest with Apibeton project. Apibeton was chosen for the first prize (5.000 EUR and EY Coaching evaluated in 2.500 EUR) among a huge variety of startups with same huge potential.

### Publications.....

- **Towards automatic code generation for distributed cyber-physical systems: A first prototype for Arduino boards** *'IEEE September 2017'*  
Embedded controllers are often the basis for cyberphysical systems and offer a pervasive support for the Internet of Things. When those controllers are made of several communicating devices we talk about

distributed embedded controllers. The IOPT-Tools is a free cloud-based framework for model-driven development of controllers. From a single graphical model, the tool already generates code to be run in several controllers. Yet, the communication layer to support inter-device communication needs to be manually written and tailored. This paper presents a first prototype of a tool that automatically adds a communication layer to the code generated by IOPT-Tools, using the I2C-bus specification. This allows automatic code generation for globally asynchronous and locally synchronous systems (GALS) supported by Arduino boards. A proof of concept example is presented.

Published in: Emerging Technologies and Factory Automation (ETFA), 2017 22nd IEEE International Conference.

<http://ieeexplore.ieee.org/document/8247737/>

- **"Main Portuguese Governmental websites have amateur vulnerabilities"** *'Exame Informática 238, Abril. pp.72,75. April 2015'*

Obsolete Servers and expired Certificates. Why are the main Portuguese Governmental websites with amateur vulnerabilities?

- **"Comparison of Permittivity from Client to Server in Secure Transaction Technologies"** *'Instituto Politécnico de Beja July 2014'*

The goal of this project was to obtain a comparative analysis between different support technologies and safe trasactions based in HTTPS. This comparative exercise will start with a theorethical root and go on to a pratical comparisson. The technologies being compared are SSL/TLS, Secure Electronic Transaction and 3D-Secure. Such comparison will be performed by several virtual machines with operative systems that divide themselves between servers and clients, with every OS fully updated. Windows Server 2012 and Ubuntu 14.04 Server were the servers chosen to this task. Windows 8.1 and Ubuntu 14.04 Client will be the client machines. Since every browser reacts differently to their users' orders, Internet Explorer (whenever Windows 8.1 is the client's SO), Google Chrome and Mozilla Firefox will all be used as browsers. The packets' capture will be performed by app Wireshark. With all tests done, the results obtained will be analyzed and compared with different servers, clients and browsers. The information sent by the client to the server will also be analyzed.

## Projects.....

- **"Master's Thesis (Ongoing)"** *'Instituto Politécnico de Beja'*

Generate Secure Code in CyberPhysical Systems Using Petri Nets.