



# Rodrigo Nobre

- Computer Science and Engineering Student

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## Profile

› Hi, my name is Rodrigo Nobre I'm from Portugal and a Software enthusiastic since I remember.

› I have a Bologna Graduation in Computer Science and Engineering by Instituto Superior Técnico.

› Currently I am doing the Masters also in Computer Science and Engineering at Instituto Superior Técnico specialised in Cyber-Security and Software Engineering.

## Education

2019 – 2021 **Masters in Computer Science and Engineering** by Instituto Superior Técnico part of University of Lisbon

2015 – 2019 **Bolonha Degree in Computer Science and Engineering** Instituto Superior Técnico part of University of Lisbon

## Experience

Deloitte.

› On **July 2019** completed a **Summer Internship** at **Deloitte Portugal** in **Financial Services–IT**.

› Part of an **International Project** based in **Canada** where I could work directly with a real client and professional developers. Became part of the **ETL Team** and developed **Service Testing** and **Data Transformation**.

› That month at Deloitte I was able to get a new perspective on **real coding implementation** and at the same time got a lot of **Soft Skills** from the side activities and presentations prepared by Deloitte.

## Skills

› Advanced experience while programming using **C**, **Java** and **Python** language and using **OOP paradigm** while using of design patterns.

› Understand **strategies for optimizing programs** taking into account the underlying computer architecture.

› Fundamental competencies on the **analysis of engineering problems** where the solution can be conceptualized as a system.

› Comprehension in the main **protocols of the Internet**. Able to **program network** applications using the **sockets** interface.

› Understand the most common software security issues (**Buffer Overflows**, **Race Conditions**, **XSS**, etc) and root causes. Knowledge in guidelines, techniques and tools for its prevention or detection.

› Comprehension in security and fault-tolerant aspects of the system design in the areas of **BlockChain** and **trustworthy computing**.

› Knowledge in **Ciber-Security Forenses**.

## Projects

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Recent University projects:

› Developed a **static analysis** tool in **Python** that receives part of a code of a **web application in Json format**, and checks if a correct **sanitization** of the incoming input is made by the application. - **2019**

› Developed a **Highly Dependable Notary application** who **certify the transfer of ownership of arbitrary goods between users** using the **Portuguese Citizen Card used to certify its identity** and provide strong **cryptographic** guarantees on the transactions. The **system is resistant to Byzantine faults**. **JAVA – 2019**

› **Develop a compiler** that parses a given language a **produces executable code** in **C++ - 2019**

› Development a **networking application** in three: the user application and two server applications in **C Language** using **Socket TCP/IP & UDP - 2018**

› Development of a system based on **Web Services** implemented in Java, to manage a bicycle platform shared on an App in **Java - 2018**

› Built a **database management system** from scratch a System Management of Forest Fires in **PostgreSQL** and **PHP – 2018**

Self-Projects:

› **Secret-Light** - Developed my own application using **Android Studio**, a simple application that converts characters or a given input text into **Morse Code** using the device flashlight in **Java Android – 2020**

› **Learn-Braille** - **Braille** application with the objective to help people to learn braille in **Java Android – 2019**.

› **Hidden-Message** – A **steganography** application of where the main idea is to hide an ASCII message inside the hexadecimal of JPEG/PNG format picture taken by the device and at the same time retrieve the message from the image. (**Currently Developing**) - **Java Android**

## Volunteer Experience

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SINFO › SINFO is a college student and non-profitable organization responsible for the planning of **one of the biggest Tech events** in Portugal.

SINFO

› It's an annual conference that takes place at the **Alameda Campus of Técnico Lisbon**.

› I was part of part of the **Social Networks** and **Partnerships Teams** working for the **SINFO-26** edition which happened on **February 2019**.

Mentor

› The Mentoring Programme at **Instituto Superior Técnico** is implemented with the support of **older students** who, on a **voluntary** basis, with their academic experiences, **accompany new students** in order to facilitate their integration and adaptation.

## Interests

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› **Federated athlete** for 10 years on Roller Hockey at the following teams: **Associação Desportiva de Oeiras**, **Paredes Futebol Clube**, **Clube Desportivo de Cascais**.

› Second place during **chess tournament** elapsed on **Secondary School Sebastião e Silva**.

› Aside from work I am passionate with sports in general but my top two are **Surf** and **Ski**.

› From cultural aspects love to play **Guitar** and **Piano**.