

Employment

Teaching Assistant **University of Minho** **Feb 2018 – July 2018**
Teaching Assistant in the "Software Development Laboratory" class, helping 2nd year students in developing software in C and Java.

Research Assistant **HASLab | Inesc Tec** **April 2018 – September 2018**

- Detection of distributed concurrency bugs from a correct execution trace of a distributed program.
- Used techniques inspired in Predictive Trace Analysis and removal of redundancy from traces to scale trace analysis algorithms.

Research Assistant **HASLab | Inesc Tec** **Feb 2017 – Jul 2017**
Quality of Robotic Software

- Discovery of error patterns in ROS packages as the main goal.
- Developed ROS packages and tested them in TurtleBot.

Education

Princeton, NJ, USA **DeepSpec Summer School** **July 2018**
Summer School about the state of the art and ongoing research efforts in Formal Verification using the Coq proof assistant.

Braga, Portugal **University of Minho** **September 2014 – Present**

- M.S.E. in Software Engineering, started in September 2017.
- B.S.E. in Software Engineering, September 2014 - June 2017. **Average Grade: 18 out of 20**
- Graduate Coursework: Cryptography; Information Security; Formal Methods; Program Specification and Verification; Program Calculus; System Deployment.
- Undergraduate Coursework: Operating Systems; Databases; Algorithms and Data Structures; Programming Languages; Comp. Architecture; Discrete Maths; Computer Networks; Operations Research; Numerical Methods.

Technical Experience

Projects

- **Open Source contribution** (2018): Falcon - Practical Log-based Analysis for Distributed Systems. (github.com/fntneves/falcon)
- **Graphics Engine** (2017): Generates a graphic scene based on geometric directives specified in XML files. C++, OpenGL, XML
- **Mnham-Mnham** (2017): Location aware food/restaurant recommendation system with voice recognition. C#, SQL Server, Xamarim
- **Reverse Proxy Server** (2017): Proxy server that distributed incoming requests through connected backend servers. Java
- **Simple Programming Language** (2017): Developed the grammar, parser and compiler for a simple imperative programming language. C, Flex, Yacc
- **Expense Manager** (2016): Expense sharing system for roommates. Java, MySQL

Additional Experience and Awards

- **Excellence Award at University of Minho (2017)**: Best average grade of all the 2nd year students of my course.
- **Excellence Award at University of Minho (2016)**: Best average grade for a 1st year student in the entire university.

- **Delegate, European Youth Parliament (2015):** Committee on International Trade, discussed the viability of a Digital Single Market in the EU.
- **National Robotics Challenge (2014):** Rescue Robot Contest.
- **Attended:** Pixels Camp 2016, Web Summit 2016, GDG Devfest Porto 2016, Pixels Camp 2017, GDG Devfest Coimbra 2017.
- **Programming contests:** Google Hash Code (2016, 2017), MIUP 2017 (main national contest), organized multiple contests at University of Minho.
- **Member of Student Non-Profit:** Staff member in multiple events including SEI and JOIN (the main events at University of Minho, with job fairs and workshops).

Languages and Technologies

- C; Prior Experience in C++; Java; Python; Prior Experience in C#; SQL; Haskell; HTML/CSS/JS;
- Visual Studio; Microsoft SQL Server; MySQL; Neo4j; Mongo; ROS; Docker; Vagrant;