

---

**EDUCATION**

---

**The University of Edinburgh** Scotland, UK  
*PhD in Robotics and Autonomous Systems* *September 2017 - Present*

**The University of Edinburgh** Scotland, UK  
*Erasmus+ Exchange/Placements Programme* *September 2016 - May 2017*  
Bioinformatics 1 (A2), Extreme Computing (B), Robotics: Science and Systems (A3), Social and Technological Networks (C).

**Faculty of Engineering at University of Porto** Portugal  
*BSc/MSc in Informatics and Computing Engineering (16 out of 20)* *September 2012 - July 2017*

---

**EXPERIENCE**

---

**The University of Edinburgh** Scotland, UK  
*Lab Demonstrator - Robotics: Science and Systems* *1st Semester, 2017/2018*

- Responsible for a class of 28 MSc students, organized in groups of three;
- Helped students build, develop and program an autonomous robot made out of *LEGO* and electronic parts.

*NASA's Valkyrie - Masters Dissertation (19 out of 20)* *January - June, 2017*

- Worked closely with a team of researchers at the University of Edinburgh on humanoid robots, namely NASA's Valkyrie;
- Received training to operate and develop software for Valkyrie.

**Microsoft** Portugal  
*Microsoft Student Partner* *February - November, 2016*

- Helped establishing new connections between Microsoft and FEUP students.

**University of Porto** Portugal  
*Research Software Engineer - [dokuwiki.github.io](https://dokuwiki.github.io)* *July - September, 2016*

- Developed a collaborative real-time editor *plugin* for DokuWiki;
- Improved existing DokuWiki plugins and packaged them in an installable bundle.

*Full Stack Developer - [nutriciencia.pt](https://nutriciencia.pt)* *July - September, 2015*

- Planned and implemented a responsive online platform using *Laravel 5* along with a doctoral researcher and Professor at FEUP;
- Took part and actively collaborated with the project research team designer, nutrition specialists, and multimedia engineers.

**Faculty of Engineering at University of Porto** Portugal  
*Computer Laboratory Teaching Assistant* *1st Semester, 2015/2016 and 2014/2015*

- Assisted a full-time Professor and taught Computer Laboratory classes, which are part of the Master in Informatics and Computer Engineering major curriculum;
- Lectured on concepts like object-oriented programming in ANSI-C, bash scripting, VESA graphic modes, state machines, and simple collisions to all the course classes in order to prepare and motivate the students for their final projects;
- Wrote a series of tutorials regarding the development of a game from the very beginning, step by step, using Minix 3.1.8, to aid students taking the course - <http://difusal.blogspot.pt/2014/07/minix-posts-index.html>;
- Contributed to a 10% increase in the number of approved students, statistics show. Also contributed to increase the quality of the students' final projects.

*Computer Graphics Teaching Assistant* *2nd Semester, 2014/2015*

- Taught two Computer Graphics classes and assisted their respective full-time Professor. The course is part of the Master in Informatics and Computer Engineering major curriculum;
- Took part of a small team of teachers and students who are actively developing *WebCGF* - a WebGL graphics library - which is being used in the course.

---

**RELEVANT SKILLS**

---

[github.com/ferrolho](https://github.com/ferrolho)

**Advanced user of:** C, C++, Java.

**Intermediate user of:** Python, Laravel, PHP, HTML, CSS, SQL, OpenGL, WebGL, JavaScript, libGDX, Allegro, Swing, ANTLR.

**Basic user of:** Assembly, Bash Scripting, Scheme, Prolog, CoffeeScript, Play Framework,  $\LaTeX$ .

**Languages:** Portuguese (native), English (fluent), Spanish (intermediate), Chinese (beginner).

---

**EXTRACURRICULAR**

---

**Cambridge English: Advanced - CAE**, took English lessons for 8 years, and earned the advanced certificate.

**Programming Contests**, participated in several college-level national (MIUP) and international (SWERC) programming competitions.