



## Ricardo Rodrigues

📍 **Address:** Rua Dom João V, nº 202, Moinhos da Funcheira, 2650-306, Amadora, Portugal

✉ **Email address:** [ricardo@colorcrow.me](mailto:ricardo@colorcrow.me) 📞 **Phone number:** (+351) 916686031

🌐 **Website:** <https://colorcrow.me/>

🌐 **LinkedIn:** <https://linkedin.com/in/ricardoeprodrigues>

**Gender:** Male **Date of birth:** 21/01/1993 **Nationality:** Portuguese

### WORK EXPERIENCE

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[ 01/2021 – Current ] **Founding Member**

#### *Sopa Para Todos*

**City:** Lisbon

**Country:** Portugal

#### **Main activities and responsibilities:**

Sopa para Todos is a movement with the purpose of helping fight hunger and re-launch the catering business (restaurants, cafés, etc.) in Portugal. The movement accomplishes this mission by inviting people to pay for a soup that will be gifted to those that need it.

This role currently requires the development of the website and map that contain information on the available businesses and the upkeep of servers and email infrastructure.

[ 08/2018 – Current ] **Teaching Assistant**

#### *Instituto Superior Técnico*

**Address:** Oeiras, Portugal

**City:** Oeiras

**Country:** Portugal

#### **Main activities and responsibilities:**

Provided assistance on multiple courses in the Bachelor's and Master's Degree in Computer Science and Engineering. Most notably I taught *Computer Graphics for Games* and *Game Design* courses.

I was tasked with giving laboratory classes, where students would put into practice what they learned in the theoretical class with my help. Additionally, I also evaluated student projects and exams.

[ 12/2017 – 12/2020 ] **Coordinator**

#### *LabJogos, Instituto Superior Técnico*

**Address:** Oeiras, Portugal

**City:** Oeiras

**Country:** Portugal

#### **Main activities and responsibilities:**

Volunteering work at the Game Lab, maintaining assets - Computers, Mobile Devices, among others - organizing events, such as Global Game Jam, MOJO at Técnico, and Alumni Meetings, and Social Media engagement - creating posts, creating websites and online events.

[ 31/12/2019 – 14/11/2020 ] **Infrastructure Coordinator**

#### *GameDev Técnico*

**City:** Oeiras  
**Country:** Portugal

[ 05/02/2019 – 12/2019 ] **Lab Manager**

**GAIPS, INESC-ID**

**Address:** Lisbon, Portugal

**Main activities and responsibilities:**

Server maintaining - Security, and Platform integration.  
People management - integration of researchers in the workspace.  
Assets Management - Computers, Mobile Devices, among others.  
Events organization.

[ 08/01/2017 – 07/01/2019 ] **Researcher/Developer on Virtual Tutoring Project**

**INESC-ID**

**Address:** Oeiras, Portugal

**Main activities and responsibilities:**

The work on the project **Virtual Tutoring** involves areas such as *Affective Computing* and *Embodied Conversational Agents*, which requires the specification and design of a computational model of Artificial Empathy as well as the development of a prototype for a software module that will mediate different dimensions of the interaction between an embodied virtual human tutor and a student in distance higher education scenarios.

[ 22/02/2016 – 05/01/2017 ] **Digital Marketing Engineer**

***t\_insight for brand movements***

**Address:** Lisbon, Portugal

**Main activities and responsibilities:**

- Web Development
- Social Media Applications and Website Development
- Mobile Applications Development

## EDUCATION AND TRAINING

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[ 08/01/2017 – Current ] **PhD in Computer Science and Engineering**

***Instituto Superior Técnico***

**Address:** Oeiras, Portugal

**Level in EQF:** EQF level 8

**Main subject / occupational skills covered:**

This degree focuses on the field of Emotional Artificial Intelligence, but reaching also into Computer Graphics, Research methods and Teaching Skills.

[ 31/08/2014 – 10/11/2016 ] **Master Degree (MSc) in Information Systems and Computer Engineering**

***Instituto Superior Técnico***

**Address:** Oeiras, Portugal

**Level in EQF:** EQF level 7

**Main subject / occupational skills covered:**

This degree has two specializations, the first is in **Game Development**, which involves studies in three-dimensional objects' manipulation (in OpenGL and other platforms), images, video and audio editing and shader programming.  
The second specialization is in **Intelligent Systems**, which involves studies in Artificial Intelligence, Planning and Search Algorithms and Natural Language Processing.

For this degree I received an award of merit for my performance.

Final Grade: 17

[ 19/09/2011 – 03/07/2014 ] **Bachelor's Degree (BSc) in Information Systems and Computer Engineering**

***Instituto Superior Técnico***

**Address:** Oeiras, Portugal

**Level in EQF:** EQF level 6

**Main subject / occupational skills covered:**

Degree is centered in two main topic, Computer Sciences and Engineering Sciences.

**Computer Sciences** focus on Information Systems and Computer Engineering.

**Engineering Sciences** gives the student the scientific bases to become an engineer, which includes Mathematics and Physics.

Final Grade: 15

## PUBLICATIONS

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[ 2020 ]

**Developing Children's Regulation of Learning in Problem-Solving With a Serious Game**

<https://ieeexplore.ieee.org/document/9146726>

[ 2019 ] **Enriching Discrete Actions with Impactful Emotions**

<https://ieeexplore.ieee.org/abstract/document/8925107/>

[ 2019 ] **Interactive Empathic Virtual Coaches Based on the Social Regulatory Cycle**

<https://ieeexplore.ieee.org/abstract/document/8925522/>

[ 2019 ] **Festarola: a Game for Improving Problem Solving Strategies**

<https://ieeexplore.ieee.org/abstract/document/8864524>

[ 2018 ] **Empathic mediators for distance learning courses**

<https://repositorioaberto.uab.pt/handle/10400.2/7970>

[ 2017 ] **Towards Believable Interactions Between Synthetic Characters**

[https://link.springer.com/chapter/10.1007/978-3-319-67401-8\\_48](https://link.springer.com/chapter/10.1007/978-3-319-67401-8_48)

## PROJECTS

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[ 2014 – Current ] **3Motion**

**3Motion** is an affective model that deconstructs the traditional atomic action into several steps, allowing each step to have an affective appraisal, giving more meaning to a single action.

[https://link.springer.com/chapter/10.1007/978-3-319-67401-8\\_48](https://link.springer.com/chapter/10.1007/978-3-319-67401-8_48)

[ 06/2020 – 01/2022 ] **Smashcart Ultra**

Smashcart Ultra is a low-poly shopping-cart simulator game where you get the chance to (or at least try to) control a crazy cart! Play a variety of minigames with your friends and end the game as the true victor! Just don't let the uncontrollable cart drive you insane!

<https://smashcart-ultra.itch.io/smashcart-ultra>

## [ 2015 – 2018 ] **Virtual Tutoring**

**Virtual Tutoring** is a mobile coaching application that presents two virtual coaches acting as tutors that help the user with his studies in Online Learning Environments, but are also aware of the users affective state.

<https://sites.uab.pt/tutoria-virtual/>

## [ 08/2017 – Current ] **3Engine**

**3Engine** is an OpenGL engine that uses Physically Based Rendering techniques implemented over SDL2, that allows for a basis to experiment with different graphical technologies.

<https://ricardoeprodrigues.github.io/3Engine/>

## **Other Projects**

Over the years I've developed several projects, here is a small compilation:

- **Time is Ticking**, a game where you die, you respawn, and your previous body is now a block to jump on.
- **Bichux**, a fun endless runner game with cute animals made with Unity on a small game jam.
- **The Great Netventure**, a Railshooter game used to teach HighSchool Students about Malware on the Internet (developed for a game-related course during the Master's).

To see all my public projects visit [github.com/RicardoEPRodrigues](https://github.com/RicardoEPRodrigues). Also, to see my published games on Itch.io visit <https://quenestil.itch.io/>.

It's important to note that I also contributed to large projects like Unreal Engine ([Pull Request](#)) and Unity ([UnityStandaloneFileBrowser](#))

I'm also involved with the Linux community, more specifically the Ubuntu distribution - [askubuntu](#) and [Linux-Magic-Trackpad-2-Driver](#)

## **JOB-RELATED SKILLS**

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### **Programming Languages**

Proficient in C++, C, C#, Web Languages (PHP, HTML, Javascript and CSS), and GLSL Shader programming language.

Comfortable in working with Java, Prolog, and Lisp.

### **Computer Graphics and Applications**

Experienced using Unreal Engine 4 and Unity 5 for game/experience development.

Some experience building an OpenGL Engine with basic Physically Based Rendering.

### **Artificial Intelligence**

Experienced in creating affective intelligent agents, creating architectures that include decision making algorithms and computable emotions, specifically models using affect regulation strategies.

## ORGANISATIONAL SKILLS

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### Teaching and Mentoring

Good organizational and teaching skills gained while mentoring and teaching students in Instituto Superior Técnico.

### Management

Management of both Game Lab of Instituto Superior Técnico and GAIPS, gave insights on both social and organizational skills.

## COMMUNICATION AND INTERPERSONAL SKILLS

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### Volunteering and Teaching

Good communication skills gained through my experience as volunteer on Serve the City Lisboa.

Helped younger students in their studies as their mentor, teaching assistant and through workshops on Programming Languages at Instituto Superior Técnico.

### Event Organizer

Participated in the organization of several events, such as the International Student Day 2015, Global Game Jam at Técnico, Game Laboratory Alumni Meetings, and MOJO at Técnico.

Furthermore, I was part of the program committee and organization committee for the 22nd ACM international conference on intelligent virtual agents (IVA'22) in 2022.

<https://ivaconference2022.ualg.pt/>

## OTHER SKILLS

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### [ 2020 – Current ] **HEMA (Historical European Martial Arts)**

Recent practitioner of HEMA. My current training includes weapons such as Feder sword (bastard sword), medieval sword, rapier, staff, spear, and shield. I believe I am more proficient with the Feder, yet I have a taste for the medieval sword.

### [ 2020 – 2021 ] **Sailing**

I took a year of sailing classes in 8-person ships. The crew had to be able to maneuver the ship in sections of the river Tejo (Portugal). During these classes, the crew members would take rotate through different roles, including controlling the rudder, managing the Mainsail (pulling or releasing the cables that would stretch or release the sail), managing the Genoa sail, launching and managing the Spi (a giant sail that only works on specific winds). The control of the ship would depend on the current winds and different strategies to deal with winds and tides were also taught.

[https://www.youtube.com/watch?v=GG3gFBRC0OQ&list=PL0x\\_JluYJ1c85-vqA\\_H4nw7F3dxSmdnoD&index=2](https://www.youtube.com/watch?v=GG3gFBRC0OQ&list=PL0x_JluYJ1c85-vqA_H4nw7F3dxSmdnoD&index=2)

### [ 2010 – 2017 ] **Krav Maga**

Practitioner of the Israelite self-defense art.

### [ 2014 – 2016 ] **Airsoft**

Casual player in this military simulation sport.

[ 2007 – 2011 ] **Swimming**

In my earlier years, I participated in tournaments. Currently, only practice it for fun and exercise.