Samuel Gomes
Computer Science and Engineering

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During my student years, I received a Bachelor's and later a Master's degrees in Computer Science and Engineering from Técnico Lisboa, focusing on the fields of Artificial Intelligence and Games. Currently, as a researcher at INESC-ID and Ph.D. student at Técnico Lisboa, I continue to study artificial intelligence areas such as adaptation, computer-driven human-human interactions, serious games technologies, and affective computing, along with transversal areas such as education science and psychology, always striving to improve both my hard and soft skills.

Education

Bachelor and Masters in CS and Engineering – Técnico Lisboa
(Sept. of 2012 - July of 2015)

Throughout the courses, I developed not only technical skills, but also other practical know-hows, such as time management and soft-skills targeted at group-based development. Most importantly, I developed self-determination, i.e. I related with multiple peers, learned how to study autonomously, and improved my competencies. In particular, I worked as a coach in the coaching teams of the Portfolio courses. I was awarded Merit Diplomas associated to the Bachelor and Master Degrees, and an Excellence Diploma associated to the Master Degree, both issued by Técnico Lisboa.

Ph.D. Student of CS and Engineering – Técnico Lisboa
(Since 2018)

Since the start of my doctoral program, I improved my research and data treatment skills, and acquired knowledge not only in computer science, but also in transversal fields such as education and psychology. I also had the opportunity to practice and improve my technical skills, and use tools, frameworks, and programming languages I had never used before.

Work Experience

Teaching Assistant – Técnico Lisboa
(Since 2019)

I worked as a TA in (i) Logic for Programming at 2019/2020, 2020/2021, and 2021/2022, and (ii) Three-Dimensional Vizualization and Animation at 2020/2021 and 2021/2022. With these roles, I developed teaching and coaching skills, and improved my technical know-how in the areas connected to logic programming and computer graphics (the protégé effect). I was awarded a Teaching Excellence Diploma associated to the year 2019/2020, issued by Técnico Lisboa.

Researcher and Developer – INESC-ID
(Since 2017)

My roles as a research assistant and developer in the European Union's Horizon 2020 LAW-TRAIN project (October of 2017 - April of 2018), in the AMIGOS project (May of 2018 - December of 2019), and in the GIMME, my Ph.D. project that remains active since January of 2020 (granted by FCT), leveraged me to develop my research skills, and complemented my doctoral studies with know-hows in robotics, affective computing, psychology, and education.

Research Review Roles
(Since 2019)

I worked as a sub-reviewer for ICGI2019, VJ2019, CoG 2020 regular papers, AIIDE-20 regular papers, and CoG 2022 regular papers; and as a reviewer for CoG 2020 short papers. With these roles, I developed critical skills, and improved my own research skills and knowledge in the process (the protégé effect).

Publications

Samuel Gomes, João Dias, and Carlos Martinho, "Application and Design of GPU Parallel RRT for Racing Car Simulation. Case Study of Iterative Parallel Sampling RRT applied to The Open Racing Car Simulator", Msc Thesis, 2017, Instituto Superior Técnico

Samuel Gomes, João Dias, and Carlos Martinho, "Iterative Parallel Sampling RRT for Racing Car Simulation", In: Progress in Artificial Intelligence. EPIA 2017, Lecture Notes in Computer Science, vol 10423. Springer, Cham.

Samuel Gomes, João Dias, and Carlos Martinho, "Group Interactions Manager for Multiplayer sErious games", 2019, In: IEEE Conference on Games (CoG) 2019

Tomás Alves, **Samuel Gomes**, João Dias, and Carlos Martinho, "The Influence of Reward on the Social Valence of Interactions", 2020, In: IEEE Conference on Games (CoG) 2020

Samuel Gomes, Tomás Alves, João Dias, and Carlos Martinho, "Reward-Mediated Individual and Altruistic Behavior", 2022, In: Videogame Sciences and Arts. VJ 2020

Samuel Gomes, Tomás Alves, João Dias, and Carlos Martinho, "Message Across: A word matching game for reward-based in-game behavior change", 2022, In: Videogame Sciences and Arts. VJ 2020

Filipa Correia, Samuel Mascarenhas, **Samuel Gomes**, Patrícia Arriaga, Iolanda Leite, Rui Prada, Francisco S. Melo, and Ana Paiva, "Exploring Prosociality in Human-Robot Teams",2019, In: 14th ACM/IEEE International Conference on Human-Robot Interaction (HRI'19)

Fernando P. Santos, Samuel Mascarenhas, Francisco C. Santos, Filipa Correia, **Samuel Gomes**, and Ana Paiva, "Outcome-based Partner Selection in Collective Risk Dilemmas", 2019, In: Proceedings of the 18th International Conference on Autonomous Agents and MultiAgent Systems

Patrícia Alves-Oliveira, **Samuel Gomes**, Ankita Chandak, Patrícia Arriaga, Guy Hoffman, and Ana Paiva, "Software architecture for YOLO, a creativity-stimulating robot", 2020, In: SoftwareX, 11, 100461.

Filipa Correia, **Samuel Gomes**, Samuel Mascarenhas, Francisco S. Melo, and Ana Paiva, "The Dark Side of Embodiment Teaming Up With Robots VS Disembodied Agents", 2020, In Robotics: Science and Systems

Extracurricular Activities

Supervisor and Instructor – AfterSchool and HAC

In the HAC project by TreeTree2 from September of 2019 to June of 2020, I supervised and mentored a middle school student, helping him to conceptualize and develop a computer science project of his liking. In this scope, the student developed a snake-style game using the pygame Python library. I also worked as an instructor in the AfterSchool project by TreeTree2, in the area of Computer Science (Informática I), from March of 2021 to April of 2021, where I taught the basics of programming to middle school students, using Python. Similar to the TA work, these roles helped me improve my coaching skills, but more importantly, they taught me how to adapt to younger students.

Developer and Graphical/ Audio Designer – Coding Competitions

I participated in multiple coding competitions, ranging from a hackaton to game jams. In specific, I participated in Gulbenkian Hack for Good 2017, in the Google Hash-Code competitions of 2018, 2019, and 2021, and in the Global Game Jams of 2018, 2019, 2020, and 2021. These events helped me to develop my coding and game development skills, and also my soft skills and peer relatedness. I made new friends along the way, as I worked in Global Game Jams with people I didn't know before.

Member – PHD Student Club

As a member of the social division of the PHD student club, I help in the organization of social gathering events. This role leveraged skills oriented to people interaction and relatedness.
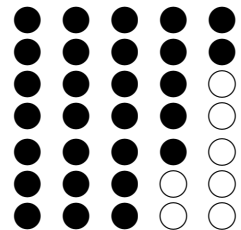
Musician – Samuel Gomes Music

I have a music channel (Samuel Gomes Music) where I publish my own songs, acting as a composer, musician and song writer.

Technical Skills

Programming Languages

Python
C#
C++
HTML/ CSS/ JavaScript
Prolog
Java
R

Libraries and Frameworks

django
d3.js, node.js, express.js
CUDA, AWS API

Tools

Unity 3D
Git (GitKraken, SourceTree)
Pentaho Data Integration
SPSS
Mongo db, SQLite, MySQL
Sublime 3, Atom, JETBRAINS (IntelliJ IDEA, Rider), Visual Studio
Blender 3D, Inkscape, Krita
Audacity

Operational Systems

Linux, Windows

Idioms

Portuguese - Birth Language

English - Fluent

Mandarin - Introductory Business Mandarin Course by Portal Martim Moniz