

# Pappas Georgios



## Personal Info

Date of Birth: 06/ 07/ 1987  
Place of Birth: Ioannina  
Address: 4 M. Kaili str. Akropoli, Nicosia, Cyprus  
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Nationalities: Greek, Cypriot

## Education

Aug '20 – Dec. '21 <i>(collaboration with my MSU advisor started in 2017 since MIT IoT Bootcamp)</i>	<b>Doctor of Philosophy</b> Department of Electrical and Computer Engineering - College of Engineering, Michigan State University (MSU) – Dual Ph.D. program - GPA 4.0/4.0  <b><i>-First graduate with two Ph.D. titles from the US-Greek Dual Ph.D. program between MSU and NTUA (Full Fellowship)</i></b> Dissertation Title: <i>“Extended Reality (XR) &amp; Gamification in the context of the Internet of Things (IoT) and Artificial Intelligence (AI)”</i>
Oct. '17 – Dec. '21	<b>Doctor of Philosophy</b> School of Electrical and Computer Engineering National Technical University of Athens (NTUA) – Dual Ph.D. program - GPA: 9.83/10  <b><i>-First graduate with two Ph.D. titles from the US-Greek Dual Ph.D. program between MSU and NTUA (Full Fellowship)</i></b> Dissertation Title: <i>“Extended Reality (XR) &amp; Gamification in the context of the Internet of Things (IoT) and Artificial Intelligence (AI)”</i>
Apr. 2021	<b>PG Certificate in “Serious Game Design and Research”</b> Department of Media and Information - College of Communication Arts and Sciences – Michigan State University
May '17 – Jun. '17	<b>Massachusetts Institute of Technology (MIT) Internet of Things Bootcamp, Cambridge, MA, USA</b>  Inaugural alumnus  - Successfully collaborated with a 7-member MIT team and lead the technical development of a prototype regarding IoT sensor data (temperature), UX and Virtual Environments.

Jan. '17 – Mar. '17	MIT Professional Education: Internet of Things: Roadmap to a Connected World
Jan. '16 – Feb. '16	MIT Professional Education: Cybersecurity: Technology, Application and Policy
Sep. '15 – Dec. '15	<b>Berklee College of Music (Online Platform) - scholarship</b> "Online Music Marketing: Campaign Strategies, Social Media, and Digital Distribution", GPA: 4/4
Dec. '05 – Feb. '14	<b>Integrated Master's Degree</b> School of Electrical and Computer Engineering of NTUA <b>Direction:</b> Electronic Engineering <b>Flows:</b> <ul style="list-style-type: none"> <li>○ Electronics – Circuits – Materials</li> <li>○ Communications and Computer Networks</li> <li>○ Waves and Telecommunications</li> <li>○ Biomedical Engineering</li> </ul>
2005	Thesis Title: "Design and Construction of a D-Class Audio Amplifier" Graded 10/10 excellent by the committee Apolytirion of Lyceum with grade 19,5/20

## Work Experience

Oct.'17 – now	<p>Open University of Cyprus (OUC) – Lab of Educational Material and Methodology – Main role: Lead AR/VR/Gamification Specialist</p> <ul style="list-style-type: none"> <li>- Award Winning projects: <ul style="list-style-type: none"> <li>○ Developed the award winning gamified tool regarding Waste Management which enables students and stakeholders to make decision based on the performance of a virtual city. (development 2021-2023)</li> <li>○ Developed the award winning gamified tool for the Bachelor's Program "Studies in Hellenic Culture" and Master's Program "Theatre Studies" that combined gamification and photogrammetry with humanities. (development 2020-2022)</li> <li>○ Developed the award winning game for the Master's Program "Computer and Network Security". The game combined cutting-edge Game Development techniques and it had the ability to connect to external VMs for real hands-on cybersecurity training. (development 2019-2020)</li> <li>○ Developed the award winning gamified tool for the Master's Program "Environmental Conservation and Management" that combined cutting edge Game Development techniques with IoT. (development 2018-2019)</li> </ul> </li> <li>- Other Projects include: <ul style="list-style-type: none"> <li>○ Oracle Numbers: Human – AI interaction (Development 2023)</li> </ul> </li> </ul>
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- Virtual Library (under development – in collaboration with the Library Department of OUC) (development 2022 - ongoing)
  - Drone Simulator (under development – in collaboration with Hellenic AirForce Academy and Michigan State University) (development 2022 - ongoing)
  - Gamification of EnAudit (in collaboration with the Energy Consortium of Indian Institute of Technology Madras) (development 2022)
  - Pedestrian Project (in collaboration with Michigan State University and National Technical University of Athens) (development 2020-2022)
  - V.A.V.E.L. (Virtual Art Viewing for Education and Learning – 3D automatic virtual art space) (development 2019-2020)
  - 3D Hologram Pyramid software (in collaboration with Terra Cypria and University of Cyprus) (development 2019)
  - Buggy Gamified Simulator (in collaboration with Michigan State University, National Technical University of Athens and Massachusetts Institute of Technology) (development 2018-2020)
- Member of the OUC Committee regarding the impact of the Generative AI in higher education
  - Participation in Quality Assurance Meetings for accreditation of multiple programs of study
  - Lead Design and Development of Online Platform for Lifelong Learning (Wordpress Based)
  - GLPI integration
  - Design and Development of a VM Management system in Microsoft Access

Feb.'17 – Sep.'17	<p>Software engineer/Web Developer at ERP dept. of Logicom Public Ltd</p> <p>Successfully lead the technical part of B2B API integration between Logicom and CISCO. Multinational Project Team. Close collaboration with Cisco HQ in Netherlands. Integration applies to 17 countries in Europe, Asia and Africa.</p> <p>Custom design and creation of com-visible dlls for Microsoft Dynamics Nav</p>
Jan. '16 – Feb. '17	Owner – Director of G.P. Karma Industry LTD (Video Games Company)
Jan. '15 – Dec. '15	<p>IT Manager of Capital Media Group Limassol:</p> <p><u>Web Development:</u> Capitalnews247, CapitalFm, Capitalwebtv, Capital Media Group, Ygeia4u. (Business analysis for web advertisements)</p> <p><u>Mobile Development:</u> Android/iOS development via Adobe Phonegap Build for Capitalnews247 app.</p> <p><u>IT Support:</u> Maintenance and service of Capital Media Group, set up and maintenance of Capitalnews247 newsroom, Networks, printers, software,</p>

	updates, upgrades. Staff training on Computer systems and methods (workshops)
	Capital FM manager: On air support (Technical support), supervisor of music producers, Business analysis of radio goals, marketing manager. playlist support.
Jan. '14 – Apr. '14	Military obligations in National Guard where I participated in Military software projects. Military obligations are fulfilled.
Nov.11 – July. '13	Undergraduate Research Assistant in Biomedical Optics and Applied Biophysics Laboratory
Jan. '08 – Mar. '10	SDS Game Studios (the game project started two years before, in 2006)
Jun. '04 – Aug. '04	LOGICOM Department of ASSEMBLY (Assembling and Repairing Personal Computers)
Jun. '03 – Aug. '03	LOGICOM Department of ASSEMBLY (Assembling and Repairing Personal Computers)
Jun. '02 – Aug. '02	LOGICOM Department of ASSEMBLY (Assembling and Repairing Personal Computers)

### Teaching Experience - Mentoring

Sep. '21 - now	Mentoring PhD student Iliana Papamichael at Open University of Cyprus
Aug '20 – Dec '21	Mentoring and guidance of PA (professorial assistant) MSU student Jacob Rutkowski in terms of game-related research
Jun. '19	<b>MIT Deep Technology Bootcamp 2019</b> , Cambridge, MA, USA – equivalent to 1 semester long MIT course <ul style="list-style-type: none"> <li>- Invited Instructor regarding AR/VR/Gamification (Faculty members and instructors were from MIT and one from Harvard University)</li> <li>- Created and conducted an AR lab</li> <li>- Team Mentoring (60 students from 27 countries)</li> </ul>
Apr. '19	Lecture and Workshop at European University of Cyprus on AR/VR/Gaming Industry as part of EL-STEM EU Funded Project

### EU and other programs

2023	Horizon Project regarding Food Waste/ Food Loss. Work Package with a Gamified tool on FW/FL (submitted).
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2023	LiFE, NITI Aayog – “Behavioural nudges by gamification to boost energy efficiency in India” submitted in collaboration with the Energy Consortium of IITM - India
2022 - 2023	SP2ACE EU funded project – Project Associate (OUC)
2019	Erasmus+ Staff Week - Universitat Oberta de Catalunya Job Shadowing – Host: Pierre Bourdin Kreitz
2019	Participated in EL-STEM Erasmus+ project dissemination (Lecture and Workshop)
2019 - now	Part of many and diverse OUC EU funding submissions.

## Awards

2023	“Thomaidion” Award 2022 (NTUA) for the publication “End-to-End Synthetic LiDAR Point Cloud Data Generation and Deep Learning Validation”
2023	Silver Award at Cyprus Education Leaders Awards category “Best Learning Experience” (Waste Management Tool) - 2022
2022	“Thomaidion” Award 2021 (NTUA) for the publication “A Gamified Simulator and Physical Platform for Self-Driving Algorithm Training and Validation”
2021	Gold Award at Cyprus Education Leaders Awards category “Digital Education” (Ancient Theater of Philippi)
2020	Gold Award at Cyprus Education Leaders Awards category “Digital Education” (Cyber Escape Room)
2019	Gold Award at Cyprus Education Leaders Awards category “Best Learning Experience” (Environmental Studies Tool)
2018	Best Demo Award at ICAT-EGVE 2018
2017	Selected at first IoT Class of MIT (50 people around the globe)
2015	Ranked at top 10 students globally of Berklee College of Music through Coursera. Scholarship awarded at USA Berklee College of Music online
2010 – now	MENSA Member (ranked in top 1%). MENSA is the largest and oldest High IQ society in the world.
2005	Silver Medalist In Cyprus Mathematics Olympiad (Cyprus)
2005	Second Place in Nicosia District Mathematics Competition (Cyprus)
2004	Silver Medalist In Cyprus Mathematics Olympiad (Cyprus )
2002 – 2005	Various Medals in local soccer tournaments

## Book Chapters

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- 2022 G. Pappas, J. Siegel, I. N. Vogiatzakis, and K. Politopoulos, "Gamification and the Internet of Things in Education - Handbook on Intelligent Techniques in the Educational Process: Vol 1 Recent Advances and Case Studies," M. Ivanović, A. Klačnja-Milićević, and L. C. Jain, Eds. Cham: Springer International Publishing, 2022, pp. 317–339.

## Journal - Magazine Publications

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- 2024 G. Pappas, D. Lappas, P. Karampelas, J. E. Siegel, I. Templelexis and S. Stavrou, "Gamified Drone Simulator: Design, Development and User Testing in a Virtual Search and Rescue Mission" under revision at MDPI Modelling, Special Issue "Modelling and Simulation in the Metaverse"
- 2023 I. Papamichael, G. Pappas, J. E. Siegel, G. Demetriou, C. Hadjisavvas, and A. A. Zorpas, "Metaverse and circular economy," Waste Manag. Res., p. 0734242X231180406, Jun. 2023.
- 2023 I. Papamichael, I. Voukkali, P. Loizia, G. Pappas, and A. A. Zorpas, "Existing tools used in the framework of environmental performance," Sustain. Chem. Pharm., vol. 32, p. 101026, 2023.
- 2022 G. Pappas, J. E. Siegel, E. Kassens-Noor, J. Rutkowski, K. Politopoulos, and A. A. Zorpas, "Game-Based Simulation and Study of Pedestrian-Automated Vehicle Interactions," Automation , vol. 3, no. 3. 2022.
- 2022 I. Papamichael, G. Pappas, J. E. Siegel, and A. A. Zorpas, "Unified waste metrics: A gamified tool in next-generation strategic planning," Sci. Total Environ., p. 154835, 2022.
- 2021 G. Pappas, I. Papamichael, A. Zorpas, J. E. Siegel, J. Rutkowski, and K. Politopoulos, "Modelling Key Performance Indicators in a Gamified Waste Management Tool," Modelling , vol. 3, no. 1. 2022.
- 2021 G. Pappas, J. E. Siegel, J. Rutkowski, and A. Schaaf, "Game and Simulation Design for Studying Pedestrian-Automated Vehicle Interactions." arXiv 2021.
- 2021 S. Zotos, M. Lemonari, M. Konstantinou, G. Pappas, P. Kyriakou, I. N. Vogiatzakis, A. Aristidou "Digitizing Wildlife: The case of reptiles 3D virtual museum" in IEEE Computer Graphics and Applications, 2022, doi: 10.1109/MCG.2022.3189034.
- 2021 G. Pappas\*, J. E. Siegel\*, K. Politopoulos, and Y. Sun, "A Gamified Simulator and Physical Platform for Self-Driving Algorithm Training and Validation" Electronics, vol. 10, no. 9. 2021. \*These authors contributed equally

- 2020 J. E. Siegel\* and G. Pappas\*, "Morals, ethics, and the technology capabilities and limitations of automated and self-driving vehicles," AI Soc., 2021 Springer.  
\*These authors contributed equally
- 2019 J. E. Siegel\*, G. Pappas\*, K. Politopoulos, and Y. Sun, "A Gamified Simulator and Physical Platform for Self-Driving Algorithm Training and Validation," arXiv preprint arXiv:1911.07759 \*These authors contributed equally

### Conferences Papers - Demos

- 2022 G. Pappas, A. Petrides, V. Liapis and J. Siegel, "Integrating Game-based Learning in Distance Learning platforms: The case of "Ancient Theater of Philippi" tool," 2022 International Conference on Interactive Media, Smart Systems and Emerging Technologies (IMET), 2022, pp. 1-2, doi: 10.1109/IMET54801.2022.9929648.
- 2022 G. Pappas, A. Petrides, V. Liapis, and J. Siegel, "Ancient Theater Of Philippi: A 3d Photogrammetry-Based Game For Distance Humanities Learning," in INTED2022 Proceedings, 2022, vol. 1, pp. 3590–3597.
- 2022 K. Karur\*, G. Pappas\*, J. E. Siegel, M. Zhang "End-to-End Synthetic LiDAR Point Cloud Data Generation and Deep Learning Validation", SAE World Congress 2022 \*These authors contributed equally
- 2020 G. Pappas, A. Peratikou, J. E. Siegel, K. Politopoulos, C. Christodoulides, and S. Stavrou "Cyber Escape Room: An educational 3D Escape Room game within a Cyber Range Training Realm" In Proceedings of INTED2020
- 2019 A. Avraamidou, S. Lambis, G. Pappas and C. Christodoulides "Enhancing Distance Education Students' Learning Experience Through Emerging Technologies". In Proceedings of INTED2019
- 2018 G. Pappas, J. Siegel, K. Politopoulos "VirtualCar: Virtual Mirroring of IoT-Enabled Avacars in AR, VR and Desktop Applications" In Proceedings of ICAT-EGVE 2018 – Best Demo Award

### Conferences - Presentations Only

- 2023 G. Pappas, S. Seshadri, S. Krishnan, J. E. Siegel and A. A. Zorpas "Triggering Behavioral Change via Gamification for Promoting Energy Efficiency" RESEE Conference 2023
- 2023 G. Pappas, J. E. Siegel, I. Papamichael, A. A. Zorpas. "A Metaverse framework for waste management", 18th International conference on Environmental Science and Technology (CEST23).

2022	G. Pappas, S. Seshadri, S. Krishnan “A Gamified Tool For Energy Audit Data”, Energy Summit 2022 – IITM Energy Consortium
2022	V. Liapis, A. Petrides, G. Pappas “Teaching ancient theatre to long-distance adult learners through a 3D, photogrammetry-based game” Annual Euroclassica Congress 2022
2022	I. Papamichael, G. Chatziparaskeva, I. Voukkali, P. Loizia, G. Pappas, A. A. Zorpas “Existing tools used in the framework of environmental performance” 9 <sup>th</sup> International Conference on Sustainable Solid Waste Management
2022	G. Chatziparaskeva, I. Papamichael, G. Pappas, A. A. Zorpas “The concept of Food Waste and Food Losses Prevention and Measuring Tools” 9th International Conference on Sustainable Solid Waste Management
2022	(Greek) Η. Παπαμιχαήλ, Γ. Χατζηπαρασκευά, Ε. Βουκκαλή, Π. Λοϊζιά, Γ. Παππάς, Α.Α. Ζορπάς “Η Κυκλική Οικονομία στην 4η Βιομηχανική Επανάσταση: Ψηφιακή Μετάβαση και Περιβαλλοντική Απόδοση” 7ο Συνεδριο Της Ελληνικής Εταιρείας Διαχείρισης Στερεων Αποβλητων
2021	J. Siegel, V. Karaïskou, G. Pappas “Virtual Art Viewing for Education and Learning (VAVEL): A tool for automatic Virtual Art Space creation for students and artists” RISE IMET 2021
2020	A. Peratikou, G. Pappas “Cyber Escape Room: Integrating Gamification in Moodle”, MoodleMoot Greece-Cyprus 2020
2018	R. Strzebkowski, T. Gehrmann, J. Siegel, K. Politopoulos, C. Christodoulides, and G. Pappas. “AR/VR/Game based Edutainment Applications and Real-Time Data Visualisation Technologies for Discovery Learning in the Industry and Distance Education.” In Proceedings of OEB Conference, December 2018.

## Reviewer

Journals	The Visual Computer, Sensors, Mathematics, Sustainability, Applied Sciences, Electronics, Arts, Transactions on Intelligent Vehicles, Open Research Europe
Conferences	IoT Conference 2022
Lead Guest Editor	Modelling - Special Issue: “Modelling and Simulation in the Metaverse”

## Invited Talks - Lectures

2024	“Emerging-Tech enabled Virtual Environments & Gamification for AVs”, Advanced Topics in Automated Vehicles, Computer Science and Engineering Department, MSU
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2024	Interview by MIT Horizon (MIT Open Learning)
2024	“Gamification Unleashed: A Hands-on Tour to Emerging Tech-Enabled Virtual Experiences”, MIT Horizon (MIT Open Learning)
2023	“Decrypting the Metaverse: Key Elements and Hands-on Examples”, Go Digital Cyprus Conference 2023, Limassol, Cyprus
2023	“Applied Gamification Techniques for Distance Learning: Tools and Simulations”, OUC, Erasmus+ Staff Week
2023	“XR and Gamification in the context of Autonomous Vehicles”, Advanced Topics in Automated Vehicles, Computer Science and Engineering Department, MSU
2023	“Applied Gamification Techniques for Distance Learning: Tools and Simulations”, OUC, EADTU
2022	“Metaverse in Game-based Research and Education” Plenary session, Metaverse Conference of Federation of Indian Chambers of Commerce & Industry (FICCI)
2022	“Metaverse: The puzzle of connected technologies and real world implementations” – Indian Institute of Technology Madras, Energy Consortium.
2022	“XR & Gamification in the context of the IoT and AI”- AutoID lab, Department of Mechanical Engineering, MIT
2022	“Examples of Gamification Implementations in Distance Learning”, Sp2ace EU Erasmus+ Funded program

## Seminars

Apr. '24	European Patent Office: “Video games and IP: How to play the game”
Sep. '22	Applying GDPR - OUC
Jan. '22	Harassment and Bullying in Higher Education - OUC
Dec. '19	EU Erasmus+ Grant writing seminar at OUC
Apr. '16	Key - Organizer of the First Game Exhibition – Cyprus Game Developers
Apr. '14	Mediterranean Acoustics Festival - Limassol
Jun. '11	Robotic Surgery – Da Vinci System in NTUA
Aug. '08	Primetel Conference: Telecommunications
Jun. '08	1 <sup>st</sup> Conference of the Greek Game Developer Community at Microsoft’s Headquarters in Athens
Oct. '08	2 <sup>nd</sup> Conference of the Greek Game Developer Community. During the Conference “The Hellenic Game Developers Association” was founded.

**Certificates,  
Programming and  
other skills**

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2024	Understanding Patents: A Deeper Dive (LinkedIn Learning - NASBA)
2024	Communicating with Emotional Intelligence (LinkedIn Learning)
2015	Certificate at online course: "Principles of Game Design" of Michigan State University
2015	Certificate at online course: "Introduction to Game Development" of Michigan State University
2015	Specialization Certificate: "Modern Musician" of Berklee College of Music via Coursera
2014	Wordpress Web Developer expert level. Ability to set up web apps via WP.
2014	Certificate at online course: "Developing your Musicianship" of Berklee College of Music"
2014	Certificate in Songwriting at online course: "Songwriting" of Berklee College of music
2014	Certificate in Music Production at online course: "Introduction to Music Production" of Berklee College of Music
2013	Certificate of music programming language Chuck at online course: "Introduction to programming for digital artists and musicians" of CalArts University
2012	Javascript Online course at Codecademy
2007	Visual Studio Developer (VB.net, C#), Databases (MySQL)

**Other Knowledge -  
Language  
Certificates-Software**

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English: IELTS 7.5 (November 2016)
English: GCE O' Level (Certificate of UK and the Commonwealth)
English: Proficiency (Anglia University)
English: First Certificate in English (University of Cambridge)
German: Grundstufe Zertifikat Deutsch
German: GCE O'Level (German to English translation Certificate)

Unity 3D Game Engine

+ AR plugins

+ VR plugins

Adobe Photoshop/ Premier / After Effects

Various DAWs such as Cubase, Audacity, FL Studio etc

Basic Knowledge of electronics software: ORCAD, Altium

Car driving license

### Hobbies - Interests

Video Games, Video Game Development, music (composition of music and lyrics), Board Games, football, basketball, ping pong, cinema, movies – TV Series.

### Volunteer Experience, Community Building, Causes

2016

#### **Cyprus Game Developers**

##### **Committee Member -1<sup>st</sup> Game Development Exhibition(2016)**

I was one of the key-note speakers of the community at our meetings that took place in Microsoft Innovation Center (Nicosia), European University Cyprus and in Cyprus University of Technology (Limassol). On April '16, we organized our First Game Exhibition Event successfully.

2008

#### **Greek Game Developer Association**

Following the development of 1453-1821 The Time of Liberation, I was one of the cofounding members of the Greek Game Developer Community.