



Curriculum Vitae

Dr. Wilbert Tabone

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Rotterdam, Netherlands

Postdoctoral Researcher in Cognitive Human-Robot Interaction with extensive experience in research and working in the private and public domain. Expertise in spatial computing technologies, applied AI, and the use of technology in the arts. Skilled in advanced design techniques, experiment design, and data analysis, with a strong publication record. Proven track record in leadership, mentoring, policy advisory and project management within academic and professional settings. Adept at applying technological solutions in various domains, including robotics, heritage, and tourism. New media art aficionado.

Skills

- **Technical and Design:** Unity, Unity MARS, Xcode, Prolific, Otter.ai, R Studio, Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Adobe Premiere Pro, TouchDesigner, Tobii Eye Tracking, VARJO XR, Microsoft HoloLens (MRTK), Apple Vision Pro, Magic Leap 2, Adobe XD, Figma, Miro, Large Language Model applications (OpenAI API, Mistral), Stable Diffusion, Stream Diffusion, Blender, TouchDesigner, Reality Composer, RealityCapture, EEG Capture and Analysis, Data Analysis.
- **Programming Languages:** Python, R, Matlab, C#, Swift, Java, Processing, p5js, Arduino.
- **Research and Science:** Design Thinking, Human Factors, User Experience, Augmented Reality, Virtual Reality, Emerging Technologies, Applied Artificial Intelligence, Computational Art, Human-Computer Interaction, Cognitive Robotics, Autonomous Vehicles, Simulators, Eye Tracking, Digital Cultural Heritage.
- **Soft Skills:** Project Management, Academic Writing, Teaching, Mentoring, Policy advisory, Communication, Scientific Communication, Disseminating complex information, Presentation skills, Experience with European projects.
- **Natural Languages:**
Maltese: Native, **English:** C2 (Proficient), **French:** A2 (Basic), **Dutch:** A2 (Basic), **Italian:** A2 (Basic).

Work Experience

Postdoctoral Researcher in Brain-Computer Interfaces

Delft University of Technology, Delft, Netherlands | Jun 2024 – Present

- I am developing an experiment using spatial computing technologies with EEG and fMRI. The aim is to investigate the use of brain-computer interfacing for human-robot interaction.

Marie Skłodowska-Curie Early-Stage Researcher (PhD Candidate)

Delft University of Technology, Delft, Netherlands | Feb 2020 – Feb 2024

- **Research Focus:** I formed part of a Horizon 2020 European research consortium (SHAPE-IT). My PhD formed part of a work package investigating the external interactions between pedestrians and automated vehicles.
- **Research Experience:** Designed, developed and evaluated nine AR interfaces using several research and development tools: online surveys, CAVE-based VR setups, and head-mounted VR/AR setups.
- **Teaching and Mentoring:** Delivered guest lectures, supervised 4 M.Sc. theses, and mentored over 21 M.Sc. students.
- **Leadership and Coordination:** Organised and chaired research forums, colloquia, and consortium meetings.
- **Publications and Reviews:** During my PhD, I served as a reviewer for several cross-disciplinary journals and conferences. Furthermore, I published 14+ peer-reviewed papers that attracted around 300 citations during my PhD. Furthermore,

External Quality Assurance Auditor and Consultant

Malta Further & Higher Education Authority (MFHEA), Malta | Mar 2015 – Present

- Contracted to audit higher education institutions to ensure compliance with European and international education standards.
- Participated in over 20 audits of several prominent Maltese institutions.
- I am also experienced in programme reviews and extension of scope reviews.

Creative Computing Executive and Data Protection Officer

Heritage Malta, Kalkara, Malta | Jul 2019 – Jan 2020

- **User Experience Enhancement:** Developed experiences using AI and spatial computing technologies to enhance visitor journeys to heritage sites such as museums, catacombs, and fortifications.
- **Cross-Linked Projects:** Collaborated on projects across government entities to produce integrated visitor experiences through a one-stop shop AR experience.
- **Digital Ecosystem Development:** Worked with the Digitization department to create a digital ecosystem for Heritage Malta's artefact collection.
- **Data Protection:** I served as the Data Protection Officer for the National Heritage Agency.

Board Member and Secretary

Malta National Task Force on Artificial Intelligence, Malta | Oct 2018 – Nov 2019

- **AI Strategy Development:** Contributed to the development of Malta's National AI Strategy as part of a government task force appointed by the Prime Minister.
- **Stakeholder Engagement:** I sat in the Education and Workforce working group, where I was responsible for engaging educators, universities, industry, and workers' unions in contributing to the national strategy.
- **Policy Recommendations:** As the board secretary, I spearheaded the research process and engaged government and private sector stakeholders in contributing to a holistic AI and technology policy, which was compiled and published during an AI summit.

Project, Communications, and Information Technology Coordinator

MUŻA – National Community Art Museum, Valletta, Malta | Aug 2017 – Aug 2019

- **Technology and UX Advisory:** Provided technology, audiovisual and UX advice, enhancing museum visitors' experience.
- **Project Coordination:** Ensured coherence between departments such as the museum café and restaurant, the concept store, and the gallery space. Maintained triangulation while I was also responsible for developing the concept store and commissioning artists.
- **Communications and Events Management:** Publicized the museum's development, managed media campaigns, and coordinated high-profile events, including the official inauguration by the Government and the NEMO General Conference 2018 held under the auspices of the EU Commissioner for Culture.

Communications and Digital Technology Officer

Ministry for Tourism, Malta | Jan 2017 – Jun 2017

- **Technical Consultancy:** Provided AI and technology consultancy for several multi-million euro governmental projects related to interconnecting tourism entities.
- **Digital Communications:** Managed ministerial social media profiles and provided advice to bolster the image of several entities under my department (i.e., Malta Tourism Authority, Malta Air Traffic Services, Malta Film Commission, and the Mediterranean Conference Centre). Experienced with photography, video productions, and Facebook 360 productions.
- **Events Organization:** Helped organize high-level conferences at EU and UN levels, representing the Ministry: European Commission, High-Level Conference on Sustainable Tourism, EU2017MT Ministerial Conference on Tourism, Mediterranean Tourism Foundation Annual Conference, United Nations World Tourism Organisation (UNWTO) High-Level Conference.

Junior Software Developer

Ixaris Systems Ltd., San Ġwann, Malta | Jun 2015 – Apr 2016

- **Software Development:** Developed internal software solutions for e-payment systems and for the QA testing team. Authored user and technical documentation, ensuring clarity and usability.
- **Infrastructure Porting:** Ported MongoDB (NoSQL) infrastructure to MySQL.
- **Security Solutions:** Created an email encryption system adhering to PCI standards.

Software Developer Student Placement

GO plc., Marsa, Malta | May 2014 – Sep 2014

- **Web Application Development:** Developed web apps for internal use, utilising Spring MVC, Hibernate, and other technologies. I utilised Apache Velocity, HTML, CSS, Javascript, and jQuery for the front end. I delivered an internal system which displayed a software database in CRUD view with enhanced capabilities, such as viewing all relationships as a visual map.
- **System Integration:** Built a system to de-provision mobile phone numbers using several web services, including Apache CXF and Apache AXIS. I also implemented Windows authentication.
- **Testing and Documentation:** Conducted rigorous jUnit testing and authored comprehensive documentation.

Intern QA Technician

Bigpoint International Services Ltd., Ta'Xbiex, Malta | May 2012 – Mar 2013

- **Quality Assurance Testing:** Devised and executed test plans for digital games, ensuring stability and user satisfaction.
- **Feedback and Reporting:** Provided feedback on new feature designs and usability and wrote detailed issue reports. Worked with an international and multi-disciplinary team.
- **Project Contributions:** Contributed to projects such as Battlestar Galactica Online, Game of Thrones Online, Ice Age Online, Pirate Storm, Seafight, DarkOrbit, Skyrama, Universal Monsters Online, and Merc Elite.

Education

Ph.D. in Cognitive Human-Robot Interaction

Delft University of Technology, Delft, Netherlands | Feb 2020 – Nov 2023

- **Thesis:** “Bridging Worlds: Augmented Reality for Pedestrian-Vehicle Interactions”.
- **Training:** Followed a rigorous Doctoral Education Programme at TU Delft, covering research methods, discipline-related skills, negotiation techniques, management skills, and transferrable skills. I received further skill training from the Marie Curie Project.

- **Networking:** Attended and presented at several international conferences, symposia, and summer schools on human factors, human-computer interaction, and XR.
- **Mobility:** Conducted research as a visiting PhD Candidate with the Human Factors & Safety research group, Institute of Transport Studies, University of Leeds, The United Kingdom.
- **Funding:** Awarded Horizon 2020 (Marie Curie) funding and Erasmus+ mobility funding.
- Certified in Human Research Protection Training by the US Department of Health and Human Services.

M.Sc. in Artificial Intelligence

University of Malta, Msida, Malta | Sep 2015 – Oct 2017

- **Dissertation:** "Semi-Automatic Segmentation of Human Anatomical Imagery".
- **Mobility:** Conducted my dissertation research with the Intelligent Systems group, Johann Bernoulli Institute for Mathematics and Computer Science, University of Groningen, and the Department of Anatomy of the University Medical Centre Groningen, The Netherlands.
- **Funding:** Awarded ENDEAVOUR and Erasmus+ Scholarships.

Diploma in European and International Studies

University of Vienna, Strobl, Austria | Jun 2016 – Aug 2016

- **Studies:** Focused on EU Framework and legislative procedures, European political systems, Law and information society, European business and strategic management.
- **Funding:** Awarded a scholarship by the University of Vienna.

B.Sc. (Hons.) in Creative Computing

Goldsmiths College, University of London | Sep 2012 – May 2015

- **Dissertation:** "Recognising Familiar Facial Features in Paintings Belonging to Separate Domains".
- **Funding:** Awarded the STAR scholarship.
- Graduated with First-Class Honours.

Selected Projects

- Lender Handler iOS App (2018).
- LGBTI+ Gozo Website (2018).
- MUŻA - The National Community Art Museum (2018).
- Naqsam il-MUŻA (2017).
- RITWALI (2020).
- NEBULA.MT (2024).

The portfolio is available on the [website](#).

Grants

STAR Scholarship

Ministry for Education, Malta & Horizon | 2012 – 2015

- Competed for over €16,000 in funding to pursue my undergraduate degree. My application ranked 3rd among the 31 candidates applying in the ICT category.

Endeavour Scholarship

Ministry for Education, Malta & Horizon 2020 | 2015 – 2017

- Awarded over €2,000 of funding to pursue my postgraduate studies in Artificial Intelligence. My application ranked 96 from 228 candidates across all categories.

Sommerhochschule Scholarship

University of Vienna | 2016

- Awarded over €1,800 of funding to follow a diploma in European and International Studies in Austria.

Marie Skłodowska-Curie ITN

Horizon 2020 | 2020 – 2024

- Awarded over €200,000 of funding as a Marie Skłodowska-Curie Early Stage Researcher to pursue my PhD studies. My application ranked 1st from around 100 candidates.

Organisational Experience and Memberships

- I was a board member of the IGDA Malta, a group of game design enthusiasts, academics, and industry members who share ideas and discuss various topics related to the game industry (2012-2016).
- Former member of the Qrendi Scouts Group.
- Was Secretary General of the Ecoschool committee at St.Michael School Qormi.
- Instructor with the Malta Sea Cadets Corps (Royal Navy) (2014-2016).
- Press Relations Officer - Google Developer's Group Malta (2016).
- Part of the organising and management team of CHOGM 2015.
- Member of the Interaction Design Foundation.
- Member of the Association for Computing Machinery (ACM) and SIGCHI.
- Member of the Europe and Africa Subcommittee of the Commonwealth Youth Council (2018-2020).
- Executive member - LGBTI+ Gozo (2018-2023).
- Member of the Government-appointed National Task Force on Artificial Intelligence (Malta).
- Committee Member of The Malta Society of Arts (2019-2020).
- Member of Socially Aware Autonomous Mobility (SAAM) Consortium (Boston, USA).
- Commission member of the National Commission for the Promotion of Equality (Malta) (2022-2026).
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Selected Talks and Outreach Activities

- Keynote speaker at World Museum Forum. Seoul, South Korea (2020).
- Outreach activities at ISMAR 2022. Singapore (2022).
- Outreach activities at CHI 2023. Hamburg, Germany (2023).
- Address to the Maltese Cabinet of Ministers on AI and Digitisation. Malta (2023).
- Speech on AI and Automation at the EESC and EU Parliament. Brussels, Belgium (2023).
- Workshop in AI and Experience Design. Royal Academy of Arts and Sciences, Amsterdam, The Netherlands (2024).
- Guest Lecture on Large Language Models for Human-Computer Interaction. Delft, Netherlands (2024).
- Invitee at the AIUla Future Culture Summit. Saudi Arabia (2024).

Selected Publications

- Tabone, W. (2020). The Effectiveness of an Augmented Reality Guiding System in an Art Museum. *Rediscovering Heritage Through Technology* (pp. 197-214). Springer, Cham.
- Tabone, W., De Winter, J. C. F., Ackermann, C., Bärghman, J., Baumann, M., Deb, S., Emmenegger, C., Habibovic, A., Hagenzieker, M., Hancock, P. A., Happee, R., Krems, J., Lee, J. D., Martens, M., Merat, N., Norman, D. A., Sheridan, T. B., & Stanton, N. A. (2021). Vulnerable road users and the coming wave of automated vehicles: Expert perspectives. *Transportation Research Interdisciplinary Perspectives*, 9, 100293.
- Tabone, W., Lee, Y.M., Merat, N., Happee, R., & De Winter, J.C.F. (2021). Towards future pedestrian-vehicle interactions: Introducing theoretically-supported AR prototypes. In *13th International Conference on Automotive User Interfaces and Interactive Vehicular Applications* (pp. 209-218).
- De Winter, J. C. F., Dodou, D., & Tabone, W. (2022). How do people distribute their attention while observing The Night Watch? *Perception*, 51, 763–788.
- Tabone, W., Happee, R., Garcia, J., Lee, Y. M., Lupetti, M. C., Merat, N., & De Winter, J. C. F. (2023). Augmented reality interfaces for pedestrian-vehicle interactions: An online study. *Transportation Research Part F: Traffic Psychology and Behaviour*, 94, 170–189.
- Joshi, S., Block, A., Tabone, W., Pandya A., & Schmitt, P. (2023). Advancing the State of AV-Vulnerable Road User Interaction: Challenges and Opportunities. *Proceedings of the AAAI 2023 Spring Symposium*. Palo Alto, California, United States.
- Tabone, W., & De Winter, J. C. F. (2023). Using ChatGPT for Human-Computer Interaction Research: A Primer. *Royal Society Open Science*, 10, 231053.

A full list of publications is available on my [website](#) or [Google Scholar](#) profile.

Conferences

- Malta Enterprise conference on national strategy for digital games, 2012. **Delegate.**
- VS-Games (University of Malta conference on serious digital games), 2014. **Delegate.**
- Google I/O, 2015, 2016, 2017, 2018. **Management.**
- Commonwealth Heads of Government Meeting (CHOGM), 2015. **Management.**
- 16th International Conference on Computer Analysis of Images and Patterns (CAIP), 2016. **Presenter.**
- ZEST Malta, 2016 (business and entrepreneur event). **Delegate.**
- European Commission, High-Level Conference on Sustainable Tourism, 2017. **Management.**
- EU2017MT Ministerial Conference on Tourism, 2017. **Management.**
- Mediterranean Tourism Foundation Annual Conference, 2017. **Management.**
- United Nations World Tourism Organisation (UNWTO) High-Level Conference, 2017. **Organiser.**
- XIX World Festival of Youth and Students, Russia, 2017. **Delegate.**

- Intelligent Games and Game Intelligence (IGGI) Conference, Queen Mary University of London, London 2018. **Delegate.**
- DELTA Summit, St. Julian's, Malta, 2018. **Delegate.**
- Malta Blockchain Summit, St. Julian's, Malta, 2018. **Delegate.**
- Network of European Museum Organisations Conference, Valletta, Malta 2018. **Organiser.**
- Applications of Intelligent Systems (APPIS), Las Palmas de Gran Canaria, 2019. **Presenter.**
- Malta: Towards a National AI Strategy, St. Julian's, Malta, 2019. **Invited Speaker.**
- Malta AI and Blockchain Summit, St. Julian's, Malta, 2019. **Delegate.**
- THU: Trojan Horse Was a Unicorn, Valletta, Malta, 2019. **Delegate.**
- DELTA Summit, Ta' Qali, Malta, 2019. **Delegate.**
- HCI Mobile, Virtual, 2020. **Delegate.**
- World Museum Forum, Soeul (Virtual), Korea, 2020. **Invited Speaker.**
- Conference on Human Factors in Computing Systems (CHI), Yokohama (Virtual), Japan, 2021. **Workshops, Courses.**
- International ACM Conference on Automotive User Interfaces and Interactive Vehicular Applications (AutoUI), Leeds (Virtual), UK, 2021. **Presenter, Workshops.**
- EuroScience Open Forum (ESOF), Leiden, Netherlands, 2022. **Delegate.**
- International Conference on Applied Human Factor and Ergonomics (AHFE), New York, USA, 2022. **Workshops, Presenter.**
- International Conference on Traffic and Transport Psychology (ICTTP), Gothenburg, Sweden, 2022. **Presenter**
- IEEE International Symposium on Mixed and Augmented Reality (ISMAR), Singapore, 2022. **Delegate.**
- ACM CHI Conference on Human Factors in Computing Systems, Hamburg, 2023. **Delegate.**
- Post-CHI Summer School on Extended Reality, Copenhagen, 2023. **Participant, Presenter.**
- MED9 Summit, Malta, 2023. **Delegate.**
- Design for AI Symposium, Delft, 2023. Workshops, Delegate. Conference on young people and mental health, European Parliament, Brussels, 2023. **Invited Speaker.**
- Immersive Tech Week, Rotterdam, 2023. **Delegate.**