Lucio Davide Spano

Curriculum Vitæ et Studiorum



Education

- Dec. 2013 **PhD in Computer Science**, Università di Pisa. PhD Thesis: "A Model-Based Approach for Gesture Interfaces".
- Oct. 2009 Master's Degree in Computer Science, Università di Pisa. Master's Thesis: "Design of a 3D Mouse Using Accelerometers".

Professional Activity

Current and Past Positions

- Since Jan. Associate Professor, University of Cagliari, Department of Mathematics and Com-2019 puter Science, Via Ospedale 72, 09124, Cagliari.
- Jan. 2016 Assistant Professor (RTD-B), University of Cagliari, Department of Mathematics
- Dec. 2018 and Computer Science, Via Ospedale 72, 09124, Cagliari.
- Nov. 2012 Assistant Professor (RTD-A), University of Cagliari, Department of Mathematics
- Oct. 2015 and Computer Science, Via Ospedale 72, 09124, Cagliari.
- Feb. 2010 Fixed-term Researcher, Istituto di Scienze e Tecnologie dell'Informazione, Consiglio
- Oct. 2012 Nazionale delle Ricerche, Via G. Moruzzi 1, 56124 Pisa.
- Mar. 2007 **Research Fellow**, Istituto di Scienze e Tecnologie dell'Informazione, Consiglio Gen. 2010 Nazionale delle Ricerche, Via G. Moruzzi 1, 56124 Pisa.

Other Activities

- Since Jun. WG2.7/13.4 Chair, International Federation for Information Processing.
 - 2022 The working group belongs to the IFIP Technical Committee 2 (Software: theory and practice) e 13 (Human Computer Interaction). Its topic is the User Interface Engineering.

Since Jun. Research Delegate, SIGCHI-Italy.

- 2021 Member of the Extended Committee of the ACM Special Interest Group in Human Computer Interaction Italian Chapter (SIGCHI-Italy).
- Since Jan. Vice-Chair, GLab (Interdepartmental Center at the University of Cagliari).
 - 2021 The Glab Interdepartmental Center conducts research and promotes the culture of play and leisure activities in a broad sense, and develops projects and applications. The center is affiliated with the Department of Civil, Environmental and Architectural Engineering and the Department of Mathematics and Computer Science at the University of Cagliari.
- Jul. 2022 Visiting Professor, University of Toulouse III (France).
- Jul. 2022 Visiting Professor, University of Michigan (USA).
- Jun. 2014 Visiting Professor, University of Girona (Spain).

Teaching Activities

From the Academic Year 2017-2018, he is the holder of the course "User Interface Technologies" within the Master's degree in Computer Science.

From the Academic Year 2013-2014, he is the holder of the course "Human-Computer Interaction" within the Bachelor's degree in Computer Science.

From the Academic Year 2012-2013 to 2018-2019, he was the holder of the course "Foundations of Web Programming" within the Bachelor's degree in Computer Science.

From July 6 to 13, 2017, he was invited by the University of Toulouse III (France), to give a course on declarative and classifier approaches for gesture recognition, as part of the Erasmus program collaboration.

On August 2, 2015, he gave a tutorial entitled "Gestural Interaction: techniques, applications and interaction problems" at the HCI International 2015 conference.

On March 25, 2015, he gave an invited seminar at the University of Verona on gestural interaction.

From June 2 to 6, 2014, he was invited to the University of Girona (Spain) to give a course on gestural interaction, as part of the Erasmus program collaboration.

Research Activity

His main research interest is human-computer interaction (HCI). He has written several articles on new interaction techniques and visualizations, gestural interaction, intelligent user interfaces, virtual and augmented reality, mobile museum guides, and end-user development.

He has collaborated on several projects funded by the European Commission in various framework programs: H2020 (ECARules4All, IDEAS), FP7 (Serenoa, ServFace), Artemis (Smarcos). He has been the main investigator on several projects: EUD4XR (Italian Ministry), ECARules4All (EU), D3P2 and EmILIE (Sardinia Regional Government) and AI4Fit (Sardegna Ricerche).

He was a member of the Model-Based User Interface Working Group of the World Wide Web Consortium (W3C). He was Program Chair of the ACM IUI Conference in 2020 and General Chair for IS-EUD 2023 and CHItaly 2017. He is a member of the senior program committee in various international conferences in HCI (INTERACT, IUI, NordiCHI, EICS, AVI).

Selected Publications

Journal Publications

- [1] Vittoria Frau, Lucio Davide Spano, Valentino Artizzu, and Michael Nebeling. XRSpotlight: Examplebased Programming of XR Interactions using a Rule-based Approach. *Proc. ACM Hum. Comput. Interact.*, 7(EICS):1–28, 2023. Best Paper Award.
- [2] Federico Maria Cau, Hanna Hauptmann, Lucio Davide Spano, and Nava Tintarev. Effects of AI and logic-style explanations on users' decisions under different levels of uncertainty. ACM Trans. Interact. Intell. Syst., 13(4):22:1–22:42, 2023.
- [3] Valentino Artizzu, Gianmarco Cherchi, Davide Fara, Vittoria Frau, Riccardo Macis, Luca Pitzalis, Alessandro Tola, Ivan Blecic, and Lucio Davide Spano. Defining configurable virtual reality templates for end users. *Proc. ACM Hum.-Comput. Interact.*, 6(EICS), 2022.
- [4] Giorgia Lallai, Giovanni Loi Zedda, Célia Martinie, Philippe A. Palanque, Mauro Pisano, and Lucio Davide Spano. Engineering task-based augmented reality guidance: Application to the training of aircraft flight procedures. *Interact. Comput.*, 33(1):17–39, 2021.
- [5] Ivan Blecic, Sara Cuccu, Filippo Andrea Fanni, Vittoria Frau, Riccardo Macis, Valeria Saiu, Martina Senis, Lucio Davide Spano, and Alessandro Tola. First-person cinematographic videogames: Game model, authoring environment, and potential for creating affection for places. ACM Journal on Computing and Cultural Heritage, 14(2):18:1–18:29, 2021.
- [6] Stefano Dessì and Lucio Davide Spano. DG3: exploiting gesture declarative models for sample generation and online recognition. Proc. ACM Hum. Comput. Interact., 4(EICS):82:1–82:21, 2020.
- [7] Lucio Davide Spano and Ludovico Boratto. Advances in computer-human interaction for recommender systems (adchires). Int. J. Hum. Comput. Stud., 121:1–3, 2019.
- [8] Fabio Marco Caputo, Pietro Prebianca, Alessandro Carcangiu, Lucio Davide Spano, and Andrea Giachetti. Comparing 3d trajectories for simple mid-air gesture recognition. Computers & Graphics, 73:17–25, 2018.

- [9] Matteo Serpi, Alessandro Carcangiu, Alessio Murru, and Lucio Davide Spano. Web5vr: A flexible framework for integrating virtual reality input and output devices on the web. PACMHCI, 2:4:1–4:19, 2018.
- [10] Alessandro Carcangiu and Lucio Davide Spano. G-gene: A gene alignment method for online partial stroke gestures recognition. *PACMHCI*, 2:13:1–13:17, 2018.
- [11] Simone Barbieri, Pietro Meloni, Francesco Usai, Lucio Davide Spano, and Riccardo Scateni. An interactive editor for curve-skeletons: Skeletonlab. Computers & Graphics, 60:23–33, 2016.
- [12] Paolo Boi, Gianni Fenu, Lucio Davide Spano, and Valentino Vargiu. Reconstructing user's attention on the web through mouse movements and perception-based content identification. ACM Trans. Appl. Percept., 13(3):15:1–15:21, May 2016.
- [13] Giuseppe Ghiani, Fabio Paternò, Lucio Davide Spano, and Giuliano Pintori. An environment for end-user development of web mashups. *International Journal of Human-Computer Studies*, 87:38 – 64, 2016.
- [14] Duccio Rocchini, Luca Delucchi, Giovanni Bacaro, Paolo Cavallini, Hannes Feilhauer, Giles M. Foody, Kate S. He, Harini Nagendra, Claudio Porta, Carlo Ricotta, Sebastian Schmidtlein, Lucio Davide Spano, Martin Wegmann, and Markus Neteler. Calculating landscape diversity with information-theory based indices: A GRASS GIS solution. *Ecological Informatics*, 17:82 – 93, 2013. Elsevier.
- [15] Fabio Paternò, Carmen Santoro, and Lucio Davide Spano. The role of HCI models in service front-end development. *Behaviour & Information Technology*, 31(3):231–244, 2012.
- [16] Fabio Paternò, Carmen Santoro, and Lucio Davide Spano. Engineering the authoring of usable service front ends. Journal of Systems and Software, 84(10):1806–1822, 2011. Elseiver.
- [17] Fabio Paternò, Carmen Santoro, and Lucio Davide Spano. MARIA: A universal, declarative, multiple abstraction-level language for service-oriented applications in ubiquitous environments. ACM Transactions on Computer-Human Interaction (TOCHI), 16(4):1–30, 2009.
- [18] Giuseppe Ghiani, Fabio Paternò, Carmen Santoro, and Lucio Davide Spano. UbiCicero: A locationaware, multi-device museum guide. Interacting with Computers, 21(4):288–303, 2009. Oxford University Press.

Conference Proceedings

- [19] Fabio Marco Caputo, Pietro Prebianca, Alessandro Carcangiu, Lucio Davide Spano, and Andrea Giachetti. A 3 cent recognizer: Simple and effective retrieval and classification of mid-air gestures from single 3d traces. In Smart Tools and Apps for Graphics Eurographics Italian Chapter Conference, Catania, Italy, September 11-12, 2017, pages 9–15, 2017.
- [20] Elena Tuveri, Luca Macis, Fabio Sorrentino, Lucio Davide Spano, and Riccardo Scateni. Fitmersive Games: Fitness Gamification Through Immersive VR. In Proceedings of the International Working Conference on Advanced Visual Interfaces, AVI '16, pages 212–215, New York, NY, USA, 2016. ACM.
- [21] Stefano Fibbi, Lucio Davide Spano, Fabio Sorrentino, and Riccardo Scateni. WoBo: Multisensorial Travels Through Oculus Rift. In Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems, CHI 2015, pages 299–302, New York, NY, USA, 2015. ACM.
- [22] Lucio Davide Spano, Antonio Cisternino, and Fabio Paternò. A Compositional Model for Gesture Definition. In Proceedings of the 4th International Conference in Human-Centered Software Engineering, volume 7623 of LNCS, pages 34–52. Springer, 2012.
- [23] Lucio Davide Spano. A model-based approach for gesture interfaces. In Proc. of the 3rd ACM SIGCHI symposium on Engineering interactive computing systems, EICS 2011, pages 327–330. ACM, 2011.
- [24] Mauro Lisai, Fabio Paternò, Carmen Santoro, and Lucio Davide Spano. Supporting Transformations across User Interface Descriptions at Various Abstraction Levels. In *Human-Computer Interaction – INTERACT 2011*, volume 6949 of *LNCS*, pages 608–611. Springer, 2011.

Last update April 11, 2024.