Alessandro Carcangiu

Department of Electrical and Electronic Engineering
Via Marengo
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Education

PhD in Electronic and Information Engineering at University of Cagliari, Italy, **October, 2015 - October 2018** Advisor: Prof. Fabio Roli

MSc in Computer Science at University of Cagliari, Italy, **October 2015 – September 2017** Final Mark: 110/110 cum laude GPA: 28.708/30 Thesis: "Modelling Feedback and Feedforward for Gesture Interfaces" | Advisor: Prof. Lucio Davide Spano

BSc in Computer Science at University of Cagliari, Italy, **October 2012 - July 2015** Final Mark: 110/110 GPA: 23.438/30 Thesis: "H2Mo4 a Virtual Laboratory for Direct Manipulation" | Advisors: Prof. Riccardo Scateni and Prof. Lucio Davide Spano

Work experience

Intern at University of Cagliari. **March 2016 – June 2016** Tutoring for class System Web Administration for the Bachelor's Degree in Computer Science. **September 2016 – January 2016 and September 2017 – January 2017** Tutoring for class Human-Computer Interaction for the Bachelor's Degree in Computer Science.

Computer Skills

Work and academic experience

- Operating Systems: *Linux*, *Windows*, *Mac OS*.
- Client side: *HTML*, *CSS*, *JavaScript*, *JQuery*.
- Server side: *Apache*, *SQL*, *PHP*, *XML*, *JSP*, *Bash*.
- IDE: *Netbeans*, *Eclipse*, *IntelliJ IDEA*, *Android Studio*, *Qt creator*.
- Version control: *Git*.
- Documents and presentations: *LaTeX*, *Drive*, *LibreOffice*, *Microsoft Office*.

Academic experience *Matlab*, *C*, *C++*, *C#*, *Ocaml*, *Python*.

Miscellaneous

Seminars

- **January 2012-2013-2014**: Course on graphic interfaces GTK+, organized by University of Cagliari, Bachelor's Degree in Computer Science, Prof. Scateni.

Publications

- Giachetti, A & Caputo, FM & Carcangiu, A & Scateni, R & Spano, LD (2016).Position paper: Shape Retrieval and 3D Gestural Interaction. 9th Eurographics Workshop on 3D Object Retrieval, 3DOR 2016, 1-4.

- Carcangiu, A & Fenu, G & Spano, LD (2016). A design pattern for multimodal and multidevice user interfaces. Proceedings of the 8th ACM SIGCHI Symposium on Engineering Interactive Computing Systems.
- Sorrentino, F & et al (2017). ChIP: Teaching coding in primary schools. CEUR WORKSHOP PROCEEDINGS 1910, 106-110.
- Caputo, FM & Prebianca, P & Carcangiu, A & Spano, LD & Giachetti, A (2017). A 3 Cent Recognizer: Simple and Effective Retrieval and Classification of Mid-air Gestures from Single 3D Traces. Smart Tools and Apps for Graphics.
- Cau, F & Carcangiu, A & Sorrentino, F & Spano, LD (2017). SnAIR drum: A gesture interface for rhythm practice. CEUR WORKSHOP PROCEEDINGS 1910, 116-119.
- Saba, M & et al (2017). A Seamless Pipeline for the Acquisition of the Body Shape: the Virtuoso Case Study. Smart Tools and Apps for Graphics.
- Carcangiu, A (2017). Gesture recognition through declarative and classifier approach. Proceedings of the 22nd International Conference on Intelligent User Interfaces Companion.
- Carcangiu, A & Spano, LD & Fumera, G & Roli, F (2017). Gesture modelling and recognition by integrating declarative models and pattern recognition algorithms. International Conference on Image Analysis and Processing, 84-95.
- Carcangiu, A (2017). A Declarative and Classifier Gesture Recognition Method for Creating an Effective Feedback and Feedforward System. CHItaly'2017.
- FM Caputo, P Prebianca, A Carcangiu, LD Spano, A Giachetti (2018), Comparing 3D trajectories for simple mid-air gesture recognition, Computers & Graphics 73, 17-25
- A Carcangiu, LD Spano (2018), G-Gene: A Gene Alignment Method for Online Partial Stroke Gestures Recognition, Proceedings of the ACM on Human-Computer Interaction 2 (EICS), 13
- M Serpi, A Carcangiu, A Murru, LD Spano (2018), Web5VR: A Flexible Framework for Integrating Virtual Reality Input and Output Devices on the Web, Proceedings of the ACM on Human-Computer Interaction 2 (EICS), 4
- A Carcangiu, LD Spano, G Fumera, F Roli (2019), DEICTIC: A compositional and declarative gesture description based on hidden markov models, International Journal of Human-Computer Studies, 122, 113-132.

Languages Italian (mother tongue), English (Written-Spoken B2 Level)

Research Interests Gesture Recognition, Human Computer Interaction, User Experience, Machine Learning, Person Re-identification, Computer Vision, Human-in-the-Loop.

Personal Interests Hiking, History, Movies, Music, Running, Basketball and Soccer.

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali"