Gabriele Marini

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Summary

Third year PhD Candidate at the University of Melbourne, sponsored by CSIRO-Data61. My research focuses on indoor localisation, sensors and modeling. I am very passionate about research and especially ubiquitous computing but I often work with 3D graphics (Unity mostly) and Android.

Education

PhD in Computing and Information Systems

May 2018 - Ongoing

University of Melbourne. Melbourne, Australia

Third year PhD Candidate. Expected graduation: May 2021

PhD in Computing and Information Systems

May 2018 - Ongoing

CSIRO - Data61. Melbourne, Australia

MSc in Computer Science (Laurea Magistrale)

Jun 2017

Universitá degli Studi di Pisa. Pisa, Italy Final grade: 110/110 *cum laude*

BSc in Computer Science

Jul 2014

Universitá degli Studi di Cagliari (Laurea Triennale). Cagliari, Italy

Final grade: 110/110 cum laude

Experience

Data Science Research Intern

June 2021 - August 2021

Nokia Bell Labs. (Remote) Cambridge, UK IoT, sensing and data science internship

PhD Candidate Jul 2018 - Ongoing

University of Melbourne. Melbourne, Australia

- Trainees Program Chair of the NHMRC Center for Research Excellence
- Treasurer of the CIS Research Students Association (CIS-GReS)
- Teaching: Tutoring includes material creation, teaching and exams/projects marking.
- INFO20005 (2021): UI Development
- INFO90003 (2020): Designing Novel Interaction
- COMP30019 (2018, 2019 and 2020): Computer Graphics and Interaction
- SWEN20003 (2019): Object Oriented Software Development
- Equipment manager for the IDL lab
- Floor Warden for the CIS department

Consultant Oct 2017 - Feb 2018

European Central Bank (ECB). Frankfurt, Germany

I worked on the long-term IReF project implementing an online survey to be sent out to all the banks in Europe. Besides that, I offered technical support for IT-related matters (Python scripts, WordPress websites management, Javascript, VBA, SQL)

Research Assistant Jun 2017 - Oct 2017

TeCIP Institute, Scuola Superiore Sant'Anna. Pisa, Italy

I worked mostly on robot vision and Hand-Eye camera robot calibration. I also developed part of the HMI (C#, MySQL) with a 3D Viewer of the robotic arm with inverse kinematics

Intern Oct 2016 - Jun 2017

VRMedia - Scuola Superiore Sant'Anna. Pisa, Italy

I developed and wrote my master thesis under the supervision of Prof. Franco Tecchia.

| Technical | ı |
|-----------|---|
| skills | |

Programming Languages: C++, C#, C, PHP, Java, Python

Data Analysis/Visualisation: R, Python, Javascript (and NodeJS), SQL, MySQL, MatLab

Web Development: HTML, CSS, Javascript (and NodeJS), PHP Markup Languages: Latex, Markdown, YAML, HTML, XML, JSON

Tools/Framework: Many IDEs and notebooks such as PyCharm, Eclipse, Jupyter, RStudio, Unity3D,

Photoshop, Blender, WordPress

Talks

• Brainstorming Workshop

NHMRC CRE 2021

• Masterclass in Photography for HCI Research University of Melbourne, April 2021

• Towards Context-Free Semantic Localization UbiComp, London, UK, Sep 2019

• Towards Indoor Localization Analytics for Modelling Flow of Movements Doctoral Colloquium, London, UK, Sep 2019

• Flow-Optimisation based on indoor localisation

Data61/CSIRO, Aug 2019

• Reliable Operating Rooms

Northern Health, Melbourne, Nov 2018

• Seminar on Indoor Localisation for supporting decision-making University of Melbourne, Nov 2018

• PhD Confirmation Seminar - Flow Optimization based on indoor localization

University of

Melbourne, June 2018

Projects

Semantic Indoor Localisation, PhD Research Project

Supervisor: Prof. Vassilis Kostakos

Emotion Recognition with Affectiva, Side project at UniMelb

Developed as a way of interacting with PCs through emotions and facial expressions, we used the Affectiva SDK and C# on Windows or Java on Android.

Injection of a scripting language into the Unreal Engine, Master thesis

Supervisor: Prof. Franco Tecchia

MeshLabJS Texture and .zip support, Final project

Supervisor: Prof. Paolo Cignoni

Interactive shoes showcase, Bachelors thesis

Supervisor: Prof. Riccardo Scateni

Languages

- Italian, Native speaker
- English, Fluent, TOEFL: 112 (C2)
- Spanish, Intermediate

Certificates

| • MTC-GR - Melbourne Teaching Certificate for Graduate Research | Nov 2019 |
|---|----------|
| WWCC - Working With Children Certificate | Feb 2019 |
| • UniMelb Tutor Development Program | Jun 2018 |
| • RIOT - Research Integrity Online Training | Jun 2018 |
| • TOEFL 112/120 (Reading: 28, Listening: 28, Speaking: 26, Writing: 30) | Sep 2017 |
| - PADI Open Water Diving License | |

• PADI - Open Water Diving License

Awards

- PhD Scholarship awarded by CSIRO Data61
- Top graduates award awarded by Universitá di Pisa
- Top graduates award awarded by ERSU Cagliari

Relevant courses

- Designing Novel Interaction (Distinguished Project Award)
- Research Methods Computer Graphics Linear Algebra
- Introduction to Robotics Virtual Environments
- Programming Languages and Compilers Advanced Databases
- Advanced Programming Advanced Algorithms

Additional Activities

- Attended CHI 2021 remotely
- SV (Student Volunteer) at UbiComp 2020 Online
- Doctoral Colloquium and Workshop presenter at UbiComp 2019 in London, UK
- SV (Student Volunteer) at UbiComp 2019 in London, UK
- Open Day Volunteer at the University of Melbourne, Australia
- SV (Student Volunteer) and attendee at OzCHI 2018 in Melbourne, Australia
- Attended UbiComp 2018 in Singapore

Extras

- Amateur photographer (landscape, astro-photography and aerial)
- Traveller and backpacker
- Long distance and open water swimmer

Publications

- 1. <u>G. Marini</u>, B. Tag, J. Goncalves, E. Velloso, R. Jurdak, V. Kostakos. Measuring Mobility and Room Occupancy in Clinical Settings: System Development and Implementation, DOI: 10.2196/19874
- 2. <u>G. Marini</u>. Towards indoor localisation analytics for modelling flows of movements. 2019. International Joint Conference on Pervasive and Ubiquitous Computing Adjunct (UbiComp '19 Adjunct) 377–382. doi:10.1145/3341162.3349306
- 3. <u>G. Marini</u>, J. Gonçalves, E. Velloso, R. Jurdak, and V. Kostakos. 2019. Towards context-free semantic localisation. International Joint Conference on Pervasive and Ubiquitous Computing Adjunct (UbiComp '19 Adjunct), 584–591. doi: 10.1145/3341162.3349329.
- 4. Northern Health gets its teeth into patient flow. 2019. VicHealth [URL]
- W. Jiang, G. Marini, N. Berkel, Z. Sarsenbayeva, Z. Tan, C. Luo, X. He, T. Dingler, J. Goncalves, Y. Kawahara, V. Kostakos. 2019. Probing Sucrose Contents in Everyday Drinks Using Miniaturized Near-Infrared Spectroscopy Scanners. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 3(4), 136:1–136:25. doi: 10.1145/3369834. [ERA: A*].
- W. Jiang, G. Marini, N. Berkel, Z. Sarsenbayeva, C. Luo, X. He, T. Dingler, Y. Kawahara, V. Kostakos. 2018. A Mobile Scanner for Probing Liquid Samples in Everyday Settings. 19 International Joint Conference on Pervasive and Ubiquitous Computing Adjunct (UbiComp Adjunct). ACM, 1172–1177. doi: 10.1145/3267305.3274764.
- 7. Z. Sarsenbayeva, <u>G. Marini</u>, N. van Berkel, C. Luo, W. Jiang, K. Yang, G. Wadley, T. Dingler, V. Kostakos, J. Goncalves, "Does Smartphone Use Drive our Emotions or vice versa? A Causal Analysis", in Proceedings of ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'20), 2020, to appear.
- 8. D. Hettiachchi, Z. Sarsenbayeva, F. Allison, N. van Berkel, T. Dingler, <u>G. Marini</u>, V. Kostakos, J. Goncalves, ""Hi! I am the Crowd Tasker" Crowdsourcing through Digital Voice Assistants", in Proceedings of ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'20), 2020, to appear.