# Angelo Ferrando

angelo.ferrando@dibris.unige.it | Via Fado 78A | 3421761217

### **EDUCATION**

#### UNIVERSITY OF GENOA

# BS IN COMPUTER SCIENCE WITH HONORS

September 2010 - July 2013 | University of Genoa

# MS IN COMPUTER SCIENCE WITH HONORS

September 2013 - October 2015 | University of Genoa

# PHD IN COMPUTER SCIENCE November 2015 - Present |

University of Genoa

# LINKS

https://angeloferrando.github.io/website/ ResearchGate://**Angelo\_Ferrando** Linkedin://**Angelo\_Ferrando** 

## COURSEWORK

#### **GRADUATE**

Computer and Network Security
Computer Vision
Computer Graphics
Implementation of Programming
Languages
Software System Design
Intelligent System
Machine Learning
Computational Intelligence
Computer-Aided Verification
Parallel Computing
Programming Paradigms

#### **UNDERGRADUATE**

Algorithms and Data Structures Object-Oriented Languages using Java and C# Database Concurrent Programming

Web application development Processing systems and transmission Software Engineering

# SKILLS

#### **PROGRAMMING**

Over 5000 lines:

C • C++ • Java • C# • MySQL •

PHP • LATEX • Prolog • HTML

Over 1000 lines:

Shell • CSS • JavaScript •

Familiar:

Python • Android • Matlab • Haskell

# **WORK EXPERIENCE**

#### **SIMULATION TEAM**

October 2012 - May 2014 |

Via Luigi Cadorna, 2, 17100 Savona Province of Savona, Italy

#### SOFTWARE DEVELOPER IN MODELING AND SIMULATION CONTEXT

I was actively involved in the development of an optimizer integrated in a simulation tool for the Early-Phase evaluation of new vessels. I was active in the development of simulation models for contract ongoing between MAST and OSN (FINCANTIERI and FINMECCANICA joint-venture). I was actively involved in a project for Modeling UAV in counter-insurgency and in the integration IA-CFG UCOIN project; in this project intelligent agents are used to simulate complex UAV activities integrated with joint operations over a North-African scenario. I had experience in Virtual Modeling with VEGA Prime and Multigen Creator.

# LANGUAGE KNOWLEDGE

## FIRST CERTIFICATE IN ENGLISH (FCE) LEVEL B2.

# ORGANIZATIONAL SKILLS

I am able to organize my own goals and I have demonstrated in the workplace to be able to handle even the work of others. During my life I had to manage different situations in which it was required to be able to take decisions independently.

# DRIVING LICENSE

#### **BLICENSE**

# HONORS AND AWARDS

• Special mention for the Master's thesis: "Trace expressions for runtime verification and protocol-driven behaviour".

# OTHER ACTIVITIES

#### STUDY ABROAD

• 2 months at the University of Liverpool (Jan - Feb 2017)

#### **ORGANIZATION**

• Local organizer at the 15th International Conference of the Italian Association for Artificial Intelligence, Genova.

#### **PHD SCHOOLS**

- Bertinoro International Spring School 2016 (BISS 2016)
- 12th Summer School on Modelling and Verification of Parallel Processes, (MOVEP 2016)
- 18th European Agent Systems Summer School (EASSS 2016)

#### **COMPETITIONS**

- International Cultural and Academic Meeting of Engineering Students (ICAMES 2013)
- NASA Simulation Exploration Experience (SEE 2013)
- NASA Simulation Exploration Experience (SEE 2014)

#### **CONFERENCES**

- 2017
  - Autonomous Agents And MultiAgent Systems International Conference (AAMAS), São Paulo (Brazil)
- 2016
  - The Luxembourg BabelNet Workshop
  - Autonomous Agents And MultiAgent Systems International Conference (AAMAS), Singapore
  - Theory and Practice of Formal Methods, Frank de Boer's 60th birthday, Eindhoven (the Netherlands)
  - 17th Workshop "dagli Oggetti agli Agenti", Catania (Italy)
  - 1st VORTEX Workshop on Runtime Verification (ECOOP), Roma
  - 15th International Conference of the Italian Association for Artificial Intelligence, Genova (Italy)

#### • 2015

- Convegno Italiano di Logica Computazionale (CILC 2015), Genova (Italy)
- Principles and Practice of Multi-Agent Systems (PRIMA 2015), Bertinoro (Italy)
- The Sixth International Symposium on Games, Automata, Logics and Formal Verification (GANDALF 2015), Genova (Italy)

# RESEARCH

#### UNIVERSITY OF GENOA | SOFTWARE ENGINEERING & PROGRAMMING LANGUAGES RESEARCH GROUP

November 2015 - Present | Genoa, Italy PhD Student.

# References

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- [2] D. Ancona, D. Briola, A. Ferrando, and V. Mascardi. Global protocols as first class entities for self-adaptive agents. In *Proceedings of the 2015*International Conference on Autonomous Agents and Multiagent Systems, AAMAS 2015, pages 1019–1029, 2015.
- [3] D. Ancona, D. Briola, A. Ferrando, and V. Mascardi. Mas-drive: a practical approach to decentralized runtime verification of agent interaction protocols. In *Proceedings of the 17th Workshop "From Objects to Agents" co-located with 18th European Agent Systems Summer School (EASSS 2016), Catania, Italy, July 29-30, 2016.*, pages 35–43, 2016.
- [4] D. Ancona, D. Briola, and V. Mascardi. Protocols with exceptions, timeouts, and handlers: A uniform framework for monitoring fail-uncontrolled and ambient intelligence systems. In *Proceedings of the 16th Workshop "From Objects to Agents"*, *Naples*, *Italy*, *June 17-19*, 2015., pages 65–75, 2015.
- [5] D. Ancona, A. Ferrando, and V. Mascardi. Comparing trace expressions and linear temporal logic for runtime verification. In *Theory and Practice of Formal Methods Essays Dedicated to Frank de Boer on the Occasion of His 60th Birthday*, pages 47–64, 2016.

- [6] D. Ancona, A. Ferrando, and V. Mascardi. Parametric runtime verification of multiagent systems. In Proceedings of the 16th Conference on Autonomous Agents and MultiAgent Systems, AAMAS 2017, São Paulo, Brazil, May 8-12, 2017, pages 1457–1459, 2017.
- [7] S. Beux, D. Briola, A. Corradi, G. Delzanno, A. Ferrando, F. Frassetto, G. Guerrini, V. Mascardi, M. Oreggia, F. Pozzi, A. Solimando, and A. Tacchella. Computational thinking for beginners: A successful experience using prolog. In *Proceedings of the 30th Italian Conference on Computational Logic, Genova, Italy, July 1-3, 2015.*, pages 31–45, 2015.
- [8] A. Bruzone, M. Massei, S. Poggi, C. Bartolucci, and A. Ferrando. Intelligent agents for human behavior modeling as support to operations. In M. S. Obaidat, S. Koziel, J. Kacprzyk, L. Leifsson, and T. Ören, editors, Simulation and Modeling Methodologies, Technologies and Applications, volume 319 of Advances in Intelligent Systems and Computing, pages 119–132. Springer International Publishing, 2015.
- [9] A. G. Bruzzone, L. Dato, and A. Ferrando. Simulation exploration experience: Providing effective surveillance and defense for a moon base against threats from outer space. In 18th IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications, DS-RT 2014, Toulouse, France, October 1-3, 2014, pages 121–126, 2014.
- [10] A. G. Bruzzone, F. Madeo, M. Dallorto, D. Poggi, and A. Ferrando. Different modeling and simulation approaches applied to industrial process plants. In Proceedings of the Emerging M&S Applications in Industry & Academia / Modeling and Humanities Symposium, part of the 2013 Spring Simulation Multiconference, SpringSim '13, San Diego, CA, USA, April 7-10, 2013, page 6, 2013.
- [11] A. Ferrando. Parametric protocol-driven agents and their integration in JADE. In Proceedings of the thirtieth Convegno Italiano di Logica Computazionale, CILC 2015, 2015.
- [12] A. Ferrando. Automatic partitions extraction to distribute the runtime verification of a global specification. In *Proceedings of the Doctoral Consortium of AI\*IA 2016 co-located with the 15th International Conference of the Italian Association for Artificial Intelligence (AI\*IA 2016), Genova, Italy, November 29, 2016.*, pages 40–45, 2016.
- [13] A. Ferrando, D. Ancona, and V. Mascardi. Monitoring patients with hypoglycemia using self-adaptive protocol-driven agents: A case study. In Engineering Multi-Agent Systems 4th International Workshop, EMAS 2016, Singapore, Singapore, May 9-10, 2016, Revised, Selected, and Invited Papers, pages 39–58, 2016.
- [14] A. Ferrando, D. Ancona, and V. Mascardi. Decentralizing MAS monitoring with decamon. In *Proceedings of the 16th Conference on Autonomous Agents and MultiAgent Systems*, AAMAS 2017, São Paulo, Brazil, May 8-12, 2017, pages 239–248, 2017.
- [15] A. Ferrando, S. Beux, V. Mascardi, and P. Rosso. Identification of disease symptoms in multilingual sentences: An ontology-driven approach. In Proceedings of the First Workshop on Modeling, Learning and Mining for Cross/Multilinguality (MultiLingMine 2016) co-located with the 38th European Conference on Information Retrieval (ECIR 2016), Padova, Italy, March 20, 2016., pages 6–15, 2016.
- [16] M. Massei, S. Poggi, M. Agresta, and A. Ferrando. Development planning based on interoperable agent driven simulation. *Journal of Computational Science*, 5(3):395 407, 2014.
- [17] M. Massei, S. Poggi, A. Tremori, and A. Ferrando. Innovative models for supporting operational planning. *International Journal of Simulation and Process Modelling*, 9(3), 2014.
- [18] A. Tremori, M. Agresta, and A. Ferrando. Simulation of autonomous systems in the extended marine domain. *IJSPM*, 11(1):9–23, 2016.