Alexandre De Masi

Researcher/Lecturer

✉ alexandre.demasi@gmail.com
🌐 ademasi.ch
C Permit in Switzerland

Experiences

2025 - *   **Researcher**, *University of Geneva*, Switzerland, Engaged in interdisciplinary research focused on designing novel User Experience (UX) interactions with Large Language Models (LLMs) for educational platforms. Specialized in leveraging UX design, Human-Computer Interaction (HCI) principles, and ethical guidelines to enhance programming education, particularly for novice learners. Evaluated usability and engagement through quantitative and qualitative methodologies, aiming to foster responsible and effective educational technology integration.

2023 - *   **Researcher**, *University Hospital of Geneva*, Switzerland, Specializing in data analysis, machine learning and UX research within innovative applications designed for the pediatric emergency domain. Focus on leveraging advanced analytics to improve patient care and user interaction, contributing to the development of leading-edge solutions in healthcare technology.

2023 - 2024   **Postdoctoral Researcher**, *University of Geneva*, Switzerland, Leading the Accompany research project, aiming to develop a serious game to support parents of adolescents with anorexia. My role encompasses overseeing project direction with an emphasis on enhancing user experience, mentoring PhD students, and pioneering the integration of Large Language Models (LLMs) for generating interactive, narrative-driven dialogues. This innovative approach aims to facilitate more engaging and realistic interactions within the game environment.

2018 - 2025   **Lecturer: Introduction to Programming** , *University of Geneva*, Switzerland, course for CUI/GSEM.
Development of the course content (lessons, exercises, and exams) with Laurent Moccozet . Taught the class in English, provided student guidance. Teaching Assistant before 2022. Mentoring students.

2016 - 2023   **Research Scientist**, *University of Geneva*, Switzerland, Research and development to quantify and enhance Quality of Experience of smartphone application.
Used quantitative and qualitative research methodologies, as well as behavioral and attitudinal research to enable higher quality smartphone application usage. Established and implemented an overall research strategy. Conducted longitudinal users studies with passive data collection and active surveys to enable statistical analysis and derived machine learning models.

2020 - 2022   **Research Scientist**, *University of Geneva*, Switzerland, Development and deployment of an emotion recognition model (affective computing) based on speech for a Socially Assistive Robot, at the QoL Lab of Prof. Wac.
Developed with deep learning models with Keras/TensorFlow. Followed a **design thinking** approach to correspond to the end-user needs (user stories, personas, journey maps). Collaboration with external teams (e.g., caretakers and health professionals) throughout Agile methods around Europe (Active Assisted Living project).

2020 - 2021   **Teaching Assistant**, *University of Geneva*, Switzerland, Multimodal and Affective Interaction Assistance in the design and development of student projects.
Course managed by Laurent Moccozet and Guillaume Chanel.

2019 - 2020   **MOOC Coordinator**, *University of Geneva*, Switzerland, Development and creation of the "Introduction to Programming" MOOC for Coursera in French with Laurent Moccozet.
Development of the course materials (quizzes and Jupyter notebook exercises) based on the Bloom's taxonomy. More than 1700 students on Coursera.

Education

2016 - 2023 **Ph.D in Information Systems and Services Science**, *University of Geneva*, Switzerland, "Modeling and enhancing Quality of Experience of Smartphone Application"
Supervised by Prof. Wac and Prof. Konstantas

2013 - 2015 **MSc Pervasive Computing and COMmunications for sustainable development (PERC-COM)**, *Master Erasmus Mundus*, Three diplomas

- **MSc in Complex Systems Engineering**, *University of Lorraine*, France, Sustainable Computer Network Engineering

- **MSc in Technology**, *Lappeenranta University of Technology*, Finland, Smart Software and Services

- **MSc in Computer Science & Engineering**, *Luleå University of Technology*, Sweden, Pervasive Computing and Computers for Sustainable Development

2011 - 2012 **BSc Science Engineering**, *University of Lorraine*, France, Network

2009 - 2011 **University Technology Diploma in Network and Telecommunication**, *Université Henry Poincarré*, France, Network & Telecommunication

Skills and Tools

Research Qualitative and Quantitative, Open Science, FAIR, DRM, EMA, A/B Testing, Eye-tracking
ML Pandas, Numpy, scikit-learn, Keras, TensorFlow, XGBoost, Spark, HuggingFace, R
DataViz Matplotlib, Streamlit, Gradio, Seaborn, Dash, Bokeh, Plotly
DevOps Docker, AWS, GCP, git, Gitlab, CI, Kubernetes, Linux
Dev Python, C, C++, Kotlin, Java, Scala, Bash, SQL, MongoDB
Arch Raspberry Pi, ESP32, Coral, TPU, GPU
Network IPv4, IPv6, TCP/UDP, QUIC, MPTCP, VoIP, SNMP, IPoAC

Languages

French Native language
English Full professional proficiency
Italian Beginner
Chinese Beginner

Selected Publications

1. Alexandre De Masi, Frédéric Ehrler, and Johan N. Siebert. *Toward Laboratory Notification in Pediatric Emergency Departments*. In: Digital Health and Informatics Innovations for Sustainable Health Care Systems. IOS Press, 2024. DOI: 10.3233/SHTI240366

2. Alexandre De Masi. "Context-aware Mobile Internet Quality Model: Quantifying and Facilitating Smartphone's Quality of Experience". eng. PhD thesis. Université de Genève, 2023. DOI: 10.13097/archive-ouverte/unige:174205

3. Alexandre De Masi and Katarzyna Wac. *Forecasting Smartphone Application Chains: an App-Rank Based Approach*. In: Proceedings of the 22nd International Conference on Mobile and Ubiquitous Multimedia. MUM '23. Association for Computing Machinery, 2023. DOI: 10.1145/3626705.3627802

4. Alexandre De Masi and Katarzyna Wac. *Less annoying: Quality of experience of commonly used mobile applications*. In: Proceedings of the 13th ACM multimedia systems conference. MMSys '22. Place: Athlone, Ireland. Association for Computing Machinery, 2022. DOI: 10.1145/3524273.3528183

5. Alexandre De Masi and Katarzyna Wac. *The Importance of Smartphone Connectivity in Quality of Life*. en. In: Quantifying Quality of Life: Incorporating Daily Life into Medicine. Health Informatics. Springer International Publishing, 2022. DOI: 10.1007/978-3-030-94212-0_23

6. Alexandre De Masi and Katarzyna Wac. *Towards accurate models for predicting smartphone applications' QoE with data from a living lab study*. en. In: Quality and User Experience 5.1, 2020. DOI: 10.1007/s41233-020-00039-w

7. Allan Berrocal, Vlad Manea, Alexandre De Masi, and Katarzyna Wac. *mQoL Lab: Step-by-Step Creation of a Flexible Platform to Conduct Studies Using Interactive, Mobile, Wearable and Ubiquitous Devices*. en. In: Procedia Computer Science. The 17th International Conference on Mobile Systems and Pervasive Computing (MobiSPC),The 15th International Conference on Future Networks and Communications (FNC),The 10th International Conference on Sustainable Energy Information Technology 175, 2020. DOI: 10.1016/j.procs.2020.07.033

8. Vlad Manea, Allan Berrocal, Alexandre De Masi, Naja Holten Møller, Katarzyna Wac, Hannah Bayer, Sune Lehmann, and Euan Ashley. *LDC '19: international workshop on longitudinal data collection in human subject studies*. In: Adjunct Proceedings of the 2019 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2019 ACM International Symposium on Wearable Computers. UbiComp/ISWC '19 Adjunct. Association for Computing Machinery, 2019. DOI: 10.1145/3341162.3347758

9. Alexandre De Masi and Katarzyna Wac. *Predicting Quality of Experience of Popular Mobile Applications from a Living Lab Study*. In: 2019 Eleventh International Conference on Quality of Multimedia Experience (QoMEX). ISSN: 2472-7814. 2019. DOI: 10.1109/QoMEX.2019.8743306 ***Best Student Paper Award**

10. Alexandre De Masi and Katarzyna Wac. *You're Using This App for What? A mQoL Living Lab Study*. In: Proceedings of the 2018 ACM International Joint Conference and 2018 International Symposium on Pervasive and Ubiquitous Computing and Wearable Computers. UbiComp '18. Association for Computing Machinery, 2018. DOI: 10.1145/3267305.3267544

11. Alexandre De Masi, Matteo Ciman, Mattia Gustarini, and Katarzyna Wac. *mQoL smart lab: quality of life living lab for interdisciplinary experiments*. In: Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct. UbiComp '16. Association for Computing Machinery, 2016. DOI: 10.1145/2968219.2971593