Personal Data   Born: November 25, 1986 in Arganil, Portugal
Nationality: Portuguese and Swiss

Current position

2020 –	Postdoctoral Fellow at the Chair of Information Management, Department of Management, Technology, and Economics (D-MTEC), ETH Zurich
2020 –	Core Director, AI & Digital Biomarker, Acoustic and Inflammatory Biomarkers at the Centre for Digital Health Interventions, ETH Zurich & University of St. Gallen

Professional and academic experience

2022	Lecturer for "Developing Digital Biomarkers" Department of Management, Technology and Economics, ETH Zurich, Switzerland (4 ECTS)
2021 –	Co-designing and Co-implementing a novel Certificate of Advanced Studies (CAS) in "Digital Health" (15 ETCS) offered by the Centre of Digital Health Interventions at ETH Zurich.
2020	Chief Research Officer, Resmonics AG
2018	Visiting scientist in Biomedical Data Science at the Geisel School of Medicine, Dartmouth College, NH, USA
2013 – 2016	Research & Development Software Engineer, Bruker BioSpin AG, Fällanden, ZH
2011 – 2012	Internship in R&D department of LMS International (Siemens), Leuven, Belgium
2008	Tutor for "Linear Algebra", Department of Mathematics, ETH Zurich

Education

2020	Doctor of Sciences (Dr. sc. ETH Zürich), Title: "*Enabling a Digital Biomarker for Asthma – Smartphone Contact-Free Audio-Based Nocturnal Cough Monitoring*"
2012	M.Sc. ETH Zurich in Electrical Engineering and Information Technology
2010	B.Sc. ETH Zurich in Electrical Engineering and Information Technology Matura
2005	Bilingual Matura (German-Romansch), Bündner Kantonsschule Chur

Research projects as leading investigator

2020 – 2022	Smartphone-based cough detection for chronic diseases, Lead PI
2020 – 2022	Cough assignment for verification and identification of patients, Lead PI
2020 – 2021	Smart speaker for remote patient monitoring, Lead PI
2020 – 2024	Vocal biomarker for congestive heart failure, (CSS insurer, Switzerland), Lead PI

Co-supervised Ph.D. thesis

1 ongoing	Dr. sc. ETH Zürich: Fan **Wu** (*Towards a Vocal Digital Biomarker for Patients with Congestive Heart Failure*)

Supervised Master and Bachelor students

2016 -	Michael Klemmer, Andrea Schwaller, Stefan Jokic, Tobias Stauffer, Mohamed Ibrahim, Zhang Kemeng, Michael Bachmann, Belén Cantos Bernal, Thijs van der Plas, Eva Brieler, Giuliano Ligi, Christos Gountis, Moritz Ritzl; theses' topics revolving around smartphone-based cough detection, vocal biomarkers for chronic diseases, and information and smart speaker systems

Important contributions to the career of students

2019 –	Tutor for the Master's programme at the Chair of Information Management, Department of Management, Technology, and Economics, ETH Zurich
2019 –	Master theses' coordinator at the Chair of Information Management, Department of Management, Technology, and Economics, ETH Zurich

Honors

2018   STARTUP CAMPUS Award for the "most innovative business idea": Pitch competition hosted by STARTUP CAMPUS and Innosuisse.

2018   Winner Digital Health Pitch Challenge at the Swiss-at-Slush pre-event: The pitch was awarded by a jury consisting of experts in healthcare and the startup ecosystem.

2018   Impact Award: Contributor to MobileCoach (www.mobile-coach.eu), an open-source platform for ecological momentary assessments and digital health interventions, received the HSG Impact Award of the University of St. Gallen

Organization of conferences and workshops

2022   Technical program committee member of the second workshop on the design of healthy user interfaces (HEALTHI) that is co-located with ACM IUI'22.

2021   Technical program committee member of the workshop on the Future of Digital Biomarkers (DigiBiom) collocated with the 19th ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)

2020   Co-organization of the guest lecture entitled "The Relevance of Digital Health for Chronic Pulmonary Conditions: Research Directions & Innovative Interventions" by Prof Dr med Martin H. Brutsche, "Chefarzt of the Klinik für Pneumologie und Schlafmedizin" at the CantonalHospital St. Gallen, www.vimeo.com/481187450

2020   Program committee member of the poster and demo track of the IEEE International Conference in Health Informatics (ICHI)

Outreach

2021   Presentation entitled "Days of Future Health: Digital Biomarkers and Beyond" as part of the ETH Risk Center's Seminar Series "Emerging risks in health and healthcare"

2021   Member of the expert panel at ETH Week 2021 "Health for tomorrow".

2021   Collaborator in proposal submitted to the Canadian Institute of Health, Grant program: Project Grant. Principal investigator: Prof. Sze Man Tse. (submitted); Title: "Mobile Health in Kids with Asthma (MoKA) Study"

2021   Two software disclosures and one invention disclosure have been filed by ETH transfer. A patent application (Application No. PAT7466EP00) is currently being sought on smartphonebased cough detection.

2021   Invited speaker at the international workshop "AI based Remote Patient Monitoring and Diagnosis in the pandemic age and beyond (RPDM) ", Department of Computer Science, at the University of Haifa, Israel

2020   Creator of the smartphone-based cough detection technology which lead to the foundation of the startup Resmonics AG, the company offers respiratory disease monitoring using clinically validated biomarkers. The startup has successfully concluded the pre-seed financing round in January 2021.

2019 –   Representing the chair of Information Management at the MTEC Master's Fair

2019   Talk "Transcending the Physical World: A Digital Biomarker for Asthma" at the WorldWebForum representing ETH, a leading event for decision makers and thought leaders on the future of an interconnected world.

2019   Guest lecture entitled "AI in Healthcare: Towards a Digital Biomarker for Asthma" at the Lucerne University of Applied Sciences and Arts

2018   Guest lecture entitled "Asthma Control Monitoring"at Dartmouth College, Center for Technology and Behavioral Change, NH, USA

2017   Seminar organizer "Introduction to Machine Learning", University of Bamberg

2016 –   Contributor to MobileCoach, an open-source software platform for digital biomarker and conversational agent research.

2016 –   Research collaboration with CSS Insurance. In this collaboration, knowledge transfer of research conducted at the Centre of Digital Health Interventions results in strategic decisions, and digital health services and platforms offered by CSS insurance and other insurance companies. Moreover, spin-off companies are supported (e.g., Resmonics AG).