Personal Information

Name	**Juan Haladjian**
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Professional Experience

Mar 2020 - present	Machine Learning Engineer at Apple, Heidelberg
Oct 2016 - Mar 2020	Post-doctoral researcher at the Chair for Applied Software Engineering at Technische Universität München
Oct 2011 - Oct 2016	Research Associate at the Chair for Applied Software Engineering at Technische Universität München
Nov 2007 - Apr 2008	Student Research Assistant at the CISTIB group at the Universitat Pompeu Fabra, Barcelona

Education

Oct 2016 - Mar 2020	Habilitation in Computer Science at Technische Universität München. This is the highest degree attainable in Germany
Oct 2011 - Oct 2016	Dr.rer.nat. in Computer Science at Technische Universität München. Passed with **suma cum laude**
Oct 2009 - Oct 2011	Master of Science in Computational Science and Engineering at Technische Universität München. Passed **with distinction** (final grade: 1,5)
Sept 2004 - Oct 2009	Bachelor in Computer Science at Universitat Pompeu Fabra. Passed **with honors**

Research Interests

Machine Learning	(Multi-modal) LLMs, self-supervised, semi-supervised, few-shot, active learning, data annotation efficiency
Ubiquitous Computing	Activity recognition, wearable computers, pattern recognition, signal processing
Human Computer Interaction	Rapid prototyping, development toolkits
Applications	Computer vision, medicine, sports, animal welfare

Awards and Achievements

2016	Software Campus Entrepreneurship Program (91k Euro)
2016	WWDC Scholarship Award from Apple
2016	ACM ISWC / Ubicomp Best paper nomination award
2015	WWDC Scholarship Award from Apple
2015	Performance Bonus Award from TUM (4041 Euro)
2014	Performance Bonus Award from TUM (4041 Euro)
2013	WWDC Scholarship Award from Apple
2010 - 2012	Scholarship from Caja Madrid (1k+ Euro per month)
2009	Extraordinary Graduation Award to best grades at UPF
2009 - 2010	Scholarship from FARO Global for internship abroad
2007	Participation in ACM ICPC Programming Contest, Lisbon
2006	Participation in ACM ICPC Programming Contest, Lisbon

Selected Publications

Jan 2020	**Haladjian, J.**, Schlabbers, D., Taheri, S., Tharr, M., & Brügge, B. (2020). **Sensor-based Detection and Classification of Soccer Goalkeeper Training Exercises**. In Proceedings of the ACM Transactions on Internet of Things, 1(2).

Dec 2019	**Haladjian, J.** (2019). **The Wearables Development Toolkit: An Integrated Development Environment for Activity Recognition Applications**. In Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies, 3(4).
Dec 2018	Echterhoff, J., **Haladjian, J**., & Brügge, B. (2018). **Gait Analysis in Horse Sports**. In Proceedings of the Fifth International Conference on Animal-Computer Interaction (p. 3). ACM.
Oct 2018	Echterhoff, J., **Haladjian, J**., & Brügge, B. (2018). **Gait and Jump Classification in Modern Equestrian Sports**. In Proceedings of the 2018 ACM International Symposium on Wearable Computers (pp. 88–91). ACM.
May 2018	**Haladjian, J**., Haug, J., Nüske, S., & Brügge, B. (2018). **A Wearable Sensor System for Lameness Detection in Dairy Cattle**. Multimodal Technologies and Interaction, 2(2), 27.
Mar 2018	**Haladjian, J**., Bredies, K., & Brügge, B. (2018). **KneeHapp Textile: A Smart Textile System for Rehabilitation of Knee Injuries**. In Proceedings of the 15th International Conference on Wearable and Implantable Body Sensor Networks (BSN) (pp. 9–12). IEEE.
Nov 2017	**Haladjian, J**., Ermis, A., Hodaie, Z., & Brügge, B. (2017). **iPig: Towards Tracking the Behavior of Free-roaming Pigs**. In Proceedings of the Fourth International Conference on Animal-Computer Interaction (pp. 10:1--10:5). ACM.
Nov 2017	**Haladjian, J**., Hodaie, Z., Nüske, S., & Brügge, B. (2017). **Gait Anomaly Detection in Dairy Cattle**. In Proceedings of the Fourth International Conference on Animal-Computer Interaction (pp. 8:1--8:8). ACM.
Sept 2017	**Haladjian, J**., Scheuermann, C., Bredies, K., & Brügge, B. (2017). **A Smart Textile Sleeve for Rehabilitation of Knee Injuries**. In Proceedings of the 2017 ACM International Symposium on Wearable Computers (pp. 49–52). ACM.
Sept 2016	**Haladjian, J.,** Bredies, K., & Brügge, B. (2016). **Interactex: An integrated development environment for smart textiles**. In Proceedings of the 2016 ACM International Symposium on Wearable Computers (pp. 8-15). ACM.

Selected Talks

Feb 2019	**Teaching Wearable Device Development with the Wearables Development Toolkit**. 2nd Workshop on Innovative Software Engineering in Education at Multikonferenz Softwareengineering & Management (paper presentation)
Jan 2019	**Development Tools for Wearable Applications**. Ubiquitous Media Technology Lab at Deutsche Forschungsinstitut für Künstliche Intelligenz (invited talk)
Oct 2018	**Rapid Prototyping of Smart Textiles**. ACM Intelligent User Interfaces Summer School at Haifa, Israel. (invited talk)
Oct 2018	**Wearable Sensors for Patients**. Machine Learning for NeuroRehabilitation workshop at International Conference on NeuroRehabilitation (paper presentation)
Oct 2018	**IPRA: Real-Time Face Recognition on Smart Glasses with Fog Computing.** Second Workshop on Eye Wear Computing at International Symposium on Wearable Computers (paper presentation)
Aug 2018	**Wearable Sensor Applications for Humans and Animals**. BioMediTech Department at Tampere University of Technology (invited talk)
Jul 2018	**Tragbare Sensortechnologien fuer Menschen und Tiere**. RFID Netzwerkabend - Fachkonferenz (invited talk)
Jul 2018	**Wearable Technologies for Patients**. Neuro-Kopf-Zentrum at Klinikum Rechts der Isar (invited talk)
May 2018	**Neue Sensorentechnologien fuer Patienten**. Fachkonferenz at Münchner Kreis (invited talk)
Mar 2018	**Wearable technology to support and assess rehabilitation after knee and hip surgeries.** Body Sensor Networks (invited talk)
Mar 2018	**Wearable Device Applications for Humans and Animals**. Human Computer Interaction Institute at Carnegie Mellon University (invited talk)
Nov 2017	**Gait Anomaly Detection in Dairy Cattle**. Animal Computer Interaction conference (paper presentation)
Nov 2017	**iPig: Towards Tracking the Behavior of Free-roaming Pigs**. Animal Computer Interaction conference (paper presentation)

Sept 2016	**Interactex: An Integrated Development Environment for Smart Textiles**. International Symposium on Wearable Computers (paper presentation)
Sept 2015	**TangoHapps: An Integrated Development Environment for Smart Garments**. International Symposium on Wearable Computers (doctoral symposium paper presentation)
Jun 2015	**KneeHapp: A Bandage for Rehabilitation of Knee Injuries**. Intel Santa Clara (invited talk)
Mar 2015	**Schnelle Prototypen fuer intelligente Kleidung**. Multikonferenz Softwareengineering & Management (keynote)
Nov 2014	**End-user development of eTextiles**. Smart Space Orchestration Workshop with Intel Edison (invited talk)
Mar 2012	**A quick prototyping tool for serious games with real time physics**. IADIS Mobile Learning (paper presentation)

Teaching Experience

2020	Assessing the laxity of a knee with an iPhone (lab course, project leader)
2019	Tracking goalkeeper training - a computer vision approach (lab course, project leader)
	Wearables for patients (seminar, instructor)
2018	Einführung in die Softwaretechnik (lecture course, exercise instructor)
	Benutzbarkeit, Benutzermodellierung und Softwareergonomie (lecture course, lecturer)
2017	Goalkeeper training tracking with a wearable sensor (lab course, project leader)
	Wearables for animals (seminar, instructor)
	Benutzbarkeit, Benutzermodellierung und Softwareergonomie (lecture course, exercise instructor and lecturer)
	A motion tracking system for pigs (lab course, project leader)
	Wearable sensors for rehabilitation after hip surgery (lab course, project leader)
2016	Lameness detection with wearable sensors (lab course, project leader)

	JASS: “Software Development for Mobile Platforms and the Internet of Things” (winter school, instructor)
2015	Ferienakademie: “Quality of Life: Mobile Apps for Rehabilitation and Wellness” (summer school, instructor)
	Ubiquitous computing (seminar, instructor)
	Smart textiles for knee rehabilitation I (lab course, project leader)
2014	Smart textiles for rehabilitation II (lab course, project leader)
	An in-flight entertainment system on the iPhone (lab course, project leader)
2013	Ferienakademie: “Smart Clothing: Amplified Intelligence” (summer school, instructor)
	A smart jacket for activity monitoring in supercomputer centers (lab course, project leader)
2012	A robot for remote meeting management (lab course, project leader)
	Steering model airplanes with an iPhone (lab course, project leader)
	Games development with iOS (seminar, instructor)
	Einführung in Informatik I (lecture course, tutor)

Projects and Funding

2017 - 2019	Torwart Sensorhandschuh project with Oliver Kahn – ZIM (coordinator and project leader, 180k Euro)
2018	iCow - Leonhard Lorenz-Stiftung (coordinator and project leader, 3K Euro)
2014 - 2016	eTextIDE - BMBF (coordinator and project leader, 91K Euro)
2013 - 2014	Custodian - Siemens CIT (project leader, 120 Euro)
2013 - 2014	Connected Textiles - EIT-ICT (project leader, 60K Euro)
2012 - 2013	Wearables M2M - T-Systems (project leader, 60K Euro)

Professional Activity

Organising Committees	ACM Animal-Computer Interaction 2019 - Program Chair
	ACM Animal-Computer Interaction 2018 - Videoposters & Demos Chair
PC Memberships	ACM Animal-Computer Interaction 2019
	ACM Animal-Computer Interaction 2018
Reviewer	Multimodal Technologies and Interaction Sensors
	ACM Interactive, Mobile, Wearable and Ubiquitous Technologies
	ACM International Symposium on Wearable Computers