Pablo Jiménez Mateo, PhD

(+34) 601 40 99 57 ⋄ pablojimenezmateo@gmail.com
This PDF is also a bootloader. Check it out!

WORK EXPERIENCE

BigML   December 2021 - Present
Machine Learning Engineer
Developing end-to-end solutions with applied machine learning.

LANGUAGES AND TECHNOLOGIES

Computer Languages	Python, Javascript (Vue, jQuery), CSS, HTML, Java, C/C++, Assembly.
Software & Tools	Django, PostgreSQL, MongoDB, Linux, Keras, LaTeX, GIT, MATLAB.
Languages	English (CAE Grade A), Spanish (Native), Catalan (Native).

EDUCATION

Universidad Carlos III de Madrid   September 2016 - December 2021
Ph.D. (4-year degree) in Telematics Engineering, December 2021.
M.Sc. (1-year degree) in Telematics Engineering, September 2017.

Universitat Jaume I   September 2009 - November 2016
M.Sc. (1-year degree) in Intelligent Systems, November 2016.
B.S. (4-year degree) in Computer Engineering, specialty in Information Technologies, July 2015.
B.S. (4-year degree) in Computational Mathematics with intensification in Mathematics, July 2014.

- Erasmus program in Oulu University, Finland. 2011-2012, 9 months.

Postgraduate Course in applied computer security: attack and defense, 2012.

RESEARCH EXPERIENCE

IMDEA Networks Institute   September 2016 - August 2021
Telecommunications Researcher
Network management and control for mmWave communications.
Supervisor: Joerg Widmer.

University of Washington   March 2019 - June 2019
PhD internship
Improving device discovery for 802.11ad and 802.11ay.
Supervisor: Sumit Roy.

Universitat Jaume I   May 2016 - July 2016
Research Assistant
Design and development of a distributed system using agents for traffic analysis in real time.

Universitat Jaume I   March 2015 - July 2015
Research Assistant
Design and development of a self-organized system for emergency management traffic access.

Universitat Jaume I   October 2014 - January 2015
Research Assistant
Generation of georeferenced alerts based on the study of the interaction of users in social networks.

TEACHING EXPERIENCE

Universidad Carlos III de Madrid   September 2019 - December 2019
Venia docendi
Teaching Access networks and shared media.

Universidad Carlos III de Madrid   September 2018 - December 2018
Venia docendi
Teaching Access networks and shared media.

Universidad Carlos III de Madrid   September 2018 - December 2018
Bachelor thesis supervisor
Interactive visualization of multifrequency coverage using virtual reality.

PUBLICATIONS

[1] Blanco, Alejandro and Jiménez Mateo, Pablo and Gringoli, Francesco and Widmer, Joerg *Augmenting mmWave localization accuracy through sub-6 GHz on off-the-shelf devices*. Proceedings of the 20th Annual International Conference on Mobile Systems, Applications and Services (MobiSys 2022).

[2] Grosheva, Nina and Assasa, Hany and Ropitault, Tanguy and Jiménez Mateo, Pablo and Widmer, Joerg and Golmie, Nada *A Comprehensive Analysis and Performance Enhancements for the IEEE 802.11ay Group Beamforming Protocol*. IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM 2022).

[3] Garcia, Dolores and Omar Lacruz, Jesús and Jiménez Mateo, Pablo and Palacios, Joan and Ruiz, Rafael and Widmer, Joerg *Scalable Phase-Coherent Beam-Training for Dense Millimeter-wave Networks*. IEEE Transactions of Mobile Computing 2021 (TMC 2021).

[4] Rea, Maurizio and Giustiniano, Domenico and Jiménez Mateo, Pablo and Lizarribar, Yago and Widmer, Joerg *Beam Searching for mmWave Networks with sub-6 GHz WiFi and Inertial Sensors Inputs: an experimental study*. Computer Networks 2021 (COMNET 2021).

[5] Omar Lacruz, Jesús and Garcia, Dolores and Jiménez Mateo, Pablo and Palacios, Joan and Widmer, Joerg *High-Speed Millimeter-Wave Mobile Experimentation on Software-Defined Radios*. GetMobile: Mobile Computing and Communications (GetMobile 2021).

[6] Omar Lacruz, Jesús and Garcia, Dolores and Jiménez Mateo, Pablo and Palacios, Joan and Widmer, Joerg *mm-FLEX: An Open Platform for Millimeter-Wave Mobile Full-Bandwidth Experimentation*. ACM International Conference on Mobile Systems, Applications, and Services (ACM MobiSys 2020).

[7] Garcia, Dolores and Omar Lacruz, Jesús and Jiménez Mateo, Pablo and Widmer, Joerg *POLAR: Passive object localization with IEEE 802.11ad using phased antenna arrays*. IEEE International Conference on Computer Communications (IEEE INFOCOM 2020).

[8] Fiandrino, Claudio and Blanco, Alejandro and Jiménez Mateo, Pablo and Andrés Ramiro, Carlos and Ludant, Norbert and Widmer, Joerg *openLEON: An end-to-end emulator from the edge data center to the mobile user*. Computer Communications, 2019.

[9] Blanco, Alejandro and Ludant, Norbert and Jiménez Mateo, Pablo and Shi, Zhenyu and Wang, Yi and Widmer Joerg *Performance Evaluation of Single Base Station ToA-AoA Localization in an LTE Testbed*. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (IEEE PIMRC 2019).

[10] Jiménez Mateo, Pablo and Fiandrino, Claudio and Widmer Joerg *Analysis of TCP Performance in 5G mm-wave Mobile Networks*. IEEE International Conference on Communications (ICC 2019), 20-24 May 2019.

[11] Jiménez Mateo, Pablo and Blanco, Alejandro and Ludant, Norbert and Marugan Borelli, Matteo and García-García, Amanda and Loch, Adrian and Shi, Zhenyu and Wang, Yi and Widmer, Joerg *A Comprehensive Study of Low Frequency and High Frequency Channel Correlation.* International Conference on Computing, Networking and Communications (ICNC 2019).

[12] Andrés Ramiro, Carlos and Fiandrino, Claudio and Blanco, Alejandro and Jiménez Mateo, Pablo and Ludant, Norbert and Widmer, Joerg *OpenLEON: An End-to-End Emulator from the Edge Data Center to the Mobile User.* Proceedings of the 12th International Workshop on Wireless Network Testbeds, Experimental Evaluation & Characterization (WiNTECH 18), 2018, doi:10.1145/3267204.3267210.

[13] Vicente Ramón Tomás López, Luis Amable García Fernández, José F. García Calderaro, Pablo Jiménez Mateo *Diseño y desarrollo de un sistema auto-organizado para la gestión de emergencias de tráfico en los accesos a Castellón de la Plana.* Autoria. Científic, 2016. ISBN 9788460889878. Castellón (Espanya). Ed. Fundación Dávalos-Fletcher.

PARTICIPATION IN PROJECTS

Advanced Techniques to Strengthen the Intelligence of 5G Networks 2019-2022
Reference: P2018/TCS-4496
Principal investigator: Domenico Giustiniano
Financing entity: Comunidad de Madrid

ICE-T: RC: Performance Evaluation of Advanced Wireless Network Edge Infrastructure - Network Simulation & Test Beds 2018-2021
Reference: 1836725
Principal investigator: Sumit Roy
Financing entity: CNS Division Of Computer and Network Systems

SEARCHLIGHT: A new communication paradigm for future very high speed 2017-2019
Reference: ERC CoG 617721
Principal investigator: Joerg Widmer
Financing entity: European Research Council

Integrated Development and Operational Technologies of 5G Networks 2017-2018
Reference: S2013/ICE-2919
Principal investigator: Joerg Widmer
Financing entity: Comunidad de Madrid

LF assists HF in beam tracking and mobility 2017-2018
Reference: Huawei HF2016120010
Principal investigator: Joerg Widmer
Financing entity: Huawei Technologies (China)