Jon Larrea

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INTERESTS

Mobile Networks and Computer Networking

EDUCATION

Ph.D. in School of Informatics at *The University of Edinburgh* — Jan 2021 – Present
Topic: Towards Future Mobile Networks: From Cloud Native Systems to Intelligent Access

MSc by Research in School of Informatics at *The University of Edinburgh* — Dec 2019 – Dec 2020
Program: ICSA (Comp. Architecture, Compilation System Software, Networks Communication)
Thesis: Towards Scalable and Realistic Emulation of Mobile Radio Access Networks for Core Network Evaluation

B.S. in Polytechnic School at *Autonomous University of Madrid* — Sep 2015 – Jun 2019
Program: Computer Science and Engineering
Thesis: Ad hoc modular OS design for high-performance environments

WORK EXPERIENCE

Computer Communications and Networks, University of Edinburgh — Spring (2020, 2021 and 2022)
Roles: Teaching Assistant and Marker

AR software engineer, VPULab Research Group, Madrid, Spain — Apr 2019 – Aug 2019

Malware analyst, S21Sec, Madrid, Spain — Sep 2018 – Dec 2018

RESTFul Services developer, Knowledge Engineering Institute, Madrid, Spain — Jun 2016 – Sep 2016

PUBLICATIONS

Jon Larrea, Mahesh K. Marina and Jacobus Van der Merwe, *"Nervion: A Cloud Native RAN Emulator for Scalable and Flexible Mobile Core Evaluation"*, in ACM International Conference on Mobile Computing And Networking (**MobiCom'21**), Feb 2022.

Rupendra Nath Mitra, Mohamed M. Kassem, **Jon Larrea** and Mahesh K. Marina, *"CUPS Hijacking in Mobile RAN Slicing: Modeling, Prototyping, and Analysis"*, in IEEE Conference on Communications and Network Security (**CNS**), Oct 2021.

Jon Larrea and Antonio Barbalance, *"The serverkernel operating system"*, in ACM International Workshop on Edge Systems, Analytics and Networking (**EdgeSys'20**), Apr 2020.

AWARDS SCHOLARSHIPS

PhD Studentship — Jan 2021 – Dec 2023
School of Informatics, The University of Edinburgh

MSc by Research Studentship — Dec 2019 – Dec 2020
School of Informatics, The University of Edinburgh

Research Scholarship — 2019
Autonomous University of Madrid

Madrid Merit Scholarship — 2018 – 2019
Community of Madrid

SKILLS

Areas of expertise
Networking, Systems design and implementation, Mobile Networks, Network programing, Linux

Languages
C, C++, Python, Java, C#, Assembler 8086, ARM Assembly, Makefile, Bash Script

SELECTED PROJECTS

Nervion
A cloud-based RAN emulator that supports the generation of control and data plane loads for 4G and 5G networks using a novel design that enables scalability and flexibility.

Serverkernel
Single space-address operating system for Raspberry Pi that allows the user to offload computations and get the result.

[CV compiled on 2022-01-12]