Ion Larrea

Room 1.17, Informatics Forum, 10 Crichton Street, Edinburgh EH8 9AB, UK jon.larrea@ed.ac.uk • +44 (0)7718 678869 • https://j0lama.github.io/

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

2018 - 2019**Madrid Merit Scholarship**

Community of Madrid

SKILLS Areas of expertise

Networking, Systems design and implementation, Mobile Networks, Network programing, Linux

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 2022-01-15]