Personal Information

Full Name: Carlos Segarra Languages: Relevant links:

Birth year: 1996 Spanish: Native Github: csegarragonz Residence: London, UK English: **Proficient** LinkedIn: carlossegarrag Mail: carlos@carlossegarra.com French: Fluent Web: carlossegarra.com

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SHORT BIO

I am a fifth-year PhD student at the Large-Scale Data and Systems Group (LSDS) of the Imperial College London, under the supervision of Prof. Peter Pietzuch. My research addresses the design and implementation of secure, high-performance, runtime systems for the cloud. I have a special interest in privacy-preserving systems and confidential computing. As part of my PhD, I have interned with Intel Labs in the datacenter security team and with IBM Research in the hybrid cloud infrastructure team. Before joining Imperial, I received an MSc in advanced mathematics, a BSc in mathematics, and a BSc in electrical engineering from the Technical University of Catalonia (UPC). I have worked as a researcher for the Barcelona Supercomputing Center (BSC), Nokia Bell Labs, the Swiss Center for Electronics and Microtechnology (CSEM), the University of Neuchatel and the UPC.

PUBLICATIONS

Submitted	TLess: Anonymous and	l Composable Attestation for	Confidential Serverless Workflows

C. Segarra, S. Shillaker, D. Goltzsche, A. Vahldiek-Oberwagner, M. Steiner, M. Vij,

L. Vilanova, R. Kapitza, and P. Pietzuch

NSDI'25 Granny: Granular Management of Compute-Intensive Applications in the Cloud

C. Segarra, S. Shillaker, G. Li, E. Mappoura, R.Bruno, L. Vilanova, and P. Pietzuch

SoCC'24 Is It Time To Put Cold Starts In The Deep Freeze?

C. Segarra, I. Durey, and P. Pietzuch

SESAME'24 Serverless Confidential Containers: Challenges and Opportunities

Bitcoin'21 A Novel Framework for the Analysis of Unknown Transactions in Bitcoin: Theory,

Model, and Experimental Results

M. Caprolu, M. Pontecorvi, M. Signorini, C. Segarra, and R. Di Pietro

EuroSys'20 KOLLAPS: Decentralized and Dynamic Topology Emulator

P. Gouveia, J. Neves, C. Segarra, L. Liechti, S. Issa, V. Schiavoni, and M. Matos

SRDS'20 Hardening IoT Brokers Using ARM TrustZone for Secure Pub/Sub Middleware

C. Segarra, and R. Delgado-Gonzalo, and V. Schiavoni

MIE'20 MQT-TZ: Secure MQTT Broker for Biomedical Signal Processing on the Edge

C. Segarra, and R. Delgado-Gonzalo, and V. Schiavoni

DAIS'19 Using Trusted Execution Environments for Secure Stream Processing of Medical Data

C. Segarra, M. Lemay, R. Delgado-Gonzalo, and V. Schiavoni,

EMBC'19 Secure Stream Processing for Medical Data

C. Segarra, E. Muntané, M. Lemay, V. Schiavoni, and R. Delgado-Gonzalo

EDUCATION

$\begin{bmatrix} Current \\ 10/2020 \end{bmatrix}$	PhD in Computing (Exp. Graduation: 12/2025) Imperial College London - Sup. Professor Peter Pietzuch
$07/2020 \ 09/2019$	Master in Advanced Mathematics and Mathematical Engineering Technical University of Catalonia, UPC
$05/2019 \ 09/2014$	Bachelor's degree in Mathematics Technical University of Catalonia, UPC
$05/2019 \mid 09/2014 \mid$	Bachelor's degree in Telecommunications Science and Technology <i>Technical University of Catalonia</i> , UPC

WORK EXPERIENCE

	11/2023	Graduate Student	Visitor at IBM Research	(Yorktown Heig	hts. NY. USA
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09/2023 | Hybrid Cloud Infrastructure - Sup. Daniele Buono

$09/2022 \ 06/2022$	Graduate Research Intern at Intel Labs (Remote) Datacenter Security Group - Sup. Mona Vij
$06/2020 \ 10/2019$	Research Collaborator at the Technical University of Catalonia (Barcelona, ES) Computer Architecture Department - Sup. Jordi Guitart, PhD
$02/2020 \ 08/2019$	Research Assistant at the Université de Neuchâtel (Neuchâtel, CH) Complex Systems Group - Sup. Valerio Schiavoni, PhD
$07/2019 \ 10/2018$	Trainee at the CSEM (Neuchâtel, CH) Embedded Software Division - Sup. Ricard Delgado Gonzalo, PhD
$09/2018 \mid 06/2018 \mid$	Trainee at Nokia Bell Labs (Paris, FR) Security Group - Sup. Matteo Signorini, PhD and Matteo Pontecorvi, PhD
$06/2018 \mid 04/2017 \mid$	Research Student at the Barcelona Supercomputing Center (Barcelona, ES) Workflows and Distributed Computing Group - Sup. Rosa M. Badia, PhD