Rogério **Pontes**

PH.D. CANDIDATE · SOFTWARE ENGINEER

Portugal

 (+351) 91 546 40 32 | rogerio.pontes@pm.me | rogerioacp | rogerioacp | rogerioacp | Rogério Pontes

"I do not fear computers. I fear the lack of them. — Isaac Asimov"

Education

University Porto   *Porto, Portugal*

PH.D. IN COMPUTER SCIENCE   *Mar. 2015 - Dec. 2019 (Expected)*

- Dissertation: Trade-offs between privacy and efficiency on databases.
- Author of 7 research papers accepted in top venues.
- Best student paper award on peer-reviewed conference (SYSTOR).
- Designed, developed and evaluated cryptographic protected databases and file systems.
- Proposed, developed and evaluated novel cryptographic schemes.

University of Minho   *Braga, Portugal*

M.SC. IN COMPUTER ENGINEERING   *Mar. 2013 - Aug. 2015*

- Dissertation: Benchmarking a Linear Algebra Approach to OLAP (18/20).
- Areas of expertise: Distrusted Systems and Formal Methods.

University of Minho   *Braga, Portugal*

B.S. IN COMPUTER ENGINEERING   *Mar. 2009 - Aug. 2013*

Skills

DevOps	Docker, Swarm, Rancher, Vagrant, Jenkins, Ansible
Back-end	PostgreSQL, HBase, Redis, Spark, Fuse, Laravel
Cryptography	Intel SGX, ORAM, Multiparty Computation, OpenSSL, Signal Protocol
Programming	JAVA, C, Python, Haskell, Node.js, LaTeX, Gnuplot
Languages	Portuguese, English

Experience

INESC TEC   *Braga, Portugal*

RESEARCH ASSISTANT   *Sep. 2014 - Present*

- Collaborated on the development and deployment of Stayaway Covid.
  - Stayaway Covid is the official contact tracing Portuguese application in response to the Covid Pandemic.
  - Analyzed the security of the underlying cryptographic protocol (DP-3T).
  - Helped write the content and define the interface of the project's webpage http://stayaway.inesctec.pt.
- Collaborated in the European SafeCloud project.
  - Developed database engines and file systems.
  - Helped write project deliverables.
  - Automated the deployment of several project components using containers.
  - Managed the successful integration of the project databases with industry partners.
  - More information on the project in https://www.safecloud-project.eu.
- Full-stack developer in FalarSobreCancro.org, a social network to help the Portuguese oncology community.
- Developer in the national OSSAS research project.
  - More information on the project in https://haslab.uminho.pt/content/haslab-concludes-project-pt-inovacaoaltice-labs.
- External reviewer of computer science conferences (SRDS 2019, DSN 2019, Crypto 2019).
- Supervised two master students dissertations. Both defended successfully.
- Helped write European project proposals.
- Implemented front-end components on several WordPress websites (Aida, BigHPC, FM2019, EuroSys2018).

Scientific Publications

On the Cost of Safe Storage for Public Clouds: An Experimental Evaluation

ACCEPTED IN SYMPOSIUM ON RELIABLE DISTRIBUTED SYSTEMS WORKSHOP (SRDSW)

Budapest, Hungary

2016

SafeRegions: Performance Evaluation of Multi-party Protocols on HBase

ACCEPTED IN SYMPOSIUM ON RELIABLE DISTRIBUTED SYSTEMS (SRDS)

Budapest, Hungary

2016

SafeFS: A Modular Architecture for Secure User-Space File Systems: One FUSE to Rule Them All

ACCEPTED IN INTERNATIONAL SYSTEMS AND STORAGE CONFERENCE (SYSTOR)

Haifa, Israel

2017

Performance trade-offs on a secure multi-party relational database

ACCEPTED IN SYMPOSIUM ON APPLIED COMPUTING (SAC)

Marrakech, Morocco

2017

A Practical Framework for Privacy-Preserving NoSQL Databases

ACCEPTED IN SYMPOSIUM ON RELIABLE DISTRIBUTED SYSTEMS (SRDS)

Hong Kong, China

2017

D'Artagnan: A Trusted NoSQL Database on Untrusted Clouds.

ACCEPTED IN SYMPOSIUM ON RELIABLE DISTRIBUTED SYSTEMS (SRDS)

Lyon, France

2019

On the trade-offs of combining multiple secure processing primitives for data analytics

ACCEPTED IN INTERNATIONAL CONFERENCE ON DISTRIBUTED APPLICATIONS AND INTEROPERABLE SYSTEMS (DAIS)

Valleta, Malta

2020

Building oblivious search from the ground up

IN SUBMISSION

Presentation

Symposium on Reliable Distributed Systems

PRESENTED <SAFEREGIONS: PERFORMANCE EVALUATION OF MULTI-PARTY PROTOCOLS ON HBASE>

Budapest, Hungary

Sep. 2016

International Conference on Distributed Applications and Interoperable Systems

PRESENTED <ON THE TRADE-OFFS OF COMBINING MULTIPLE SECURE PROCESSING PRIMITIVES FOR DATA ANALYTICS>

Valleta, Malta

Jun. 2020

Extracurricular Activity

EuroSys

ORGANIZATION VOLUNTEER

Porto, Portugal

2018

Languages

Portuguese, Native

English, Fully Professional

Deutsch, No Proficiency