Borja de Régil

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I am interested in writing fast and correct distributed systems, and scalable peer-to-peer networks.

Areas of Interest

Distributed Systems
Databases
Conflict-Free Replicated Data Types (CRDTs)

Skills

Erlang, Bash, Javascript (Node) (*Professional Experience*) Java, Python, Pony (*Fluent*) C, OCaml, Clojure, R (*Familiar*)

Previous Experience

Imdea Software Institute
Distributed systems programmer
June 2020—Current

The work is funded by an ERC grant "A Rigorous Approach to Consistency in Cloud Databases".

Imdea Software Institute

Research Intern

October 2016-May 2020

Implemented and evaluated a new transactional protocol for strongly consistent distributed databases; implemented a relational (SQL) model adapter for key-value distributed storage; tested distributed programs via property checking (model checking); implemented an open-source library for batching and multiplexing of TCP connections, which allowed to scale systems to handle up to 2.5 times more requests per second. The work was funded by an ERC grant "A Rigor-

ous Approach to Consistency in Cloud Databases".

Google Summer of Code

Alumni

Summer 2016

Improved run-time performance of the Lasp programming language by applying deforestation techniques and control flow analysis.

H4ckademy Programming School

Alumni

Summer 2015

Co-designed and implemented a domain-specific language in Python that would let users write unit test against streaming APIs.

Publications

Workshop

Borja Arnau de Régil Basáñez, Christopher Meiklejohn, *Dynamic Path Contraction for Distributed, Dynamic Dataflow Languages.* AGERE 2016.

http://arxiv.org/abs/1609.01068

Education

B.S. in Computer Science

Complutense University of Madrid, Madrid

Class of 2020

Languages

Spanish (Native)
English (Full professional proficiency)