Borja de Régil

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github.com/ergl

Making strong consistency scale.

Areas of Interest

Distributed and Storage Systems
Strong (consensus) and Weak Consistency (CRDTs)
Thread-per-core programming language runtimes

Education

B.S. in Computer Science
Complutense University of Madrid, Madrid
June 2020

Experience

Imdea Software Institute
Research/Development Engineer
June 2020—Current

Developer of Unistore, a fault-tolerant data store combining causal and strong consistency. Developed significant experience with fault-tolerant distributed consensus protocols (Paxos) and Conflict-free replicated data types (CRDTs). The work was funded by an ERC grant *A Rigorous Approach to Consistency in Cloud Databases*.

Imdea Software Institute
Research Intern
October 2016—May 2020

Developer of fastPSI, a transactional protocol for databases with flexible consistency semantics. Developed experience with property-based testing and TCP performance on high-latency scenarios. Extensive design of evaluation benchmarks. The work was funded by an ERC grant *A Rigorous Approach to Consistency in Cloud Databases*.

Google Summer of Code, BEAM Community

Participant

May 2016—Aug 2016

Improved the run-time performance of Lasp, a programming language for distributed, eventually consistent computations. Reduced end-to-end latency by applying deforestation techniques and control flow analysis in distributed dataflow scenarios.

Publications

Conferences

Manuel Bravo, Alexey Gotsman, Borja de Régil and Hengfeng Wei, *UniStore: A fault-tolerant marriage of causal and strong consistency.* USENIX ATC '21. [PDF]

Workshops

Borja de Régil and Christopher Meiklejohn, *Dynamic Path Contraction for Distributed, Dynamic Dataflow Languages.* AGERE 2016. [arXiv preprint]

Skills

Go, Erlang, R, shell scripting *(Professional Experience)*
Java, Python, Pony, Javascript *(Fluent)*
C, OCaml, Clojure, Rust *(Familiar)*

Languages

English (Full professional proficiency)
Spanish (Native)