Baltasar Dinis

Curriculum Vitae

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Education

2017-2020	**Bsc in Information Systems and Computer Engineering**, *Instituto Superior Técnico*, Lisbon. GPA: 18 out of 20
2020-2022	**Msc in Information Systems and Computer Engineering**, *Instituto Superior Técnico*, Lisbon. GPA: 18 out of 20. My Master's dissertation on Restart-Rollback, a novel fault model for replicated systems with persistent state, was awarded 20 out of 20 points.
2023-present	**PhD in Electrical Engineering and Computer Science**, *MIT*, Cambridge, MA.

Experience

Research

Summer 2018	**Research Intern**, *Max Planck Institute for Software Systems*, Saarbrücken, Germany. Worked on TEEM, a secure remote storage solution which aims to ensure confidentiality, integrity and freshness of data under a strong threat model, using Intel® SGX. Worked under the supervision of Dr. Peter Druschel (MPI-SWS) and Dr. Rodrigo Rodrigues (INESC-ID).
2018-2023	**Research Intern**, *INESC-ID*, Lisbon, Portugal. Pursued several research projects, spaning a diverse set of fields: a novel fault model for TEE rollback protection, a COVID-related system for epidemiological analisys with strong security and privacy guarantees, a new type of generic fault model for distributed systems and confidentiality and integrity of dataflow computations.

Teaching

Fall 2020	**Teaching Assistant**, *Instituto Superior Técnico*, Lisbon, Portugal. Taught practical classes of Computer Architecture. Graded both projects and exams.
Fall 2021	**Teaching Assistant**, *Instituto Superior Técnico*, Lisbon, Portugal. Taught practical classes of Computer Organization and Operating Systems. Graded both projects and exams.
Fall 2022	**Teaching Assistant**, *Instituto Superior Técnico*, Lisbon, Portugal. Taught practical classes of Operating Systems. Was in charge of designing the second part of the project. Graded projects.
Spring 2023	**Teaching Assistant**, *Instituto Superior Técnico*, Lisbon, Portugal. Taught practical classes of Artificial Intelligence and High Availability Systems. Graded both projects and exams.

Software Engineering

Summer 2020	**Software Engineering Intern**, *MemSQL/SingleStore*, Remote Internship. Worked the storage team of the database engine, contributing code to a very large C++ codebase. Developed `frodo`, a black-box tool for checking isolation guarantees of SQL databases.

Summer 2021 **Production Network Engineer**, *Facebook*, Dublin, Ireland.
Developed a verification system for BGP networks to ensure that business-critical properties are upheld even in the presence of configuration changes.

Publications

Roberta De Viti, Isaac Sheff, Noemi Glaeser, Baltasar Dinis, Rodrigo Rodrigues, Bobby Bhattacharjee, Anwar Hithnawi, Deepak Garg, and Peter Druschel. Covault: Secure, scalable analytics of personal data. In *34th USENIX Security Symposium (USENIX Security 25)*, pages 567–586, 2025.

Baltasar Dinis, Peter Druschel, and Rodrigo Rodrigues. RR: A fault model for efficient TEE replication. In *The Network and Distributed System Security Symposium*. Internet Society, 2023.

Ben Holmes, Baltasar Dinis, Lana Honcharuk, Joshua Fried, and Adam Belay. Taming serverless cold starts through os co-design. *arXiv preprint arXiv:2509.14292*, 2025.