André Nascimento

Curriculum Vitae

Education

2024 - ongoing **Doctoral Degree in Computer Science & Engineering**.

Instituto Superior Técnico, University of Lisbon

EQF level 8 | Credits: 180

2021 - 2023 Master's Degree in Computer Science & Engineering.

Instituto Superior Técnico, University of Lisbon EQF level 7 | Final Grade: 18/20 | Credits: 120

Thesis A Typed Intermediate Language for Specifying the ECMAScript Standard

2018 - 2021 Bachelor's Degree in Computer Science & Engineering.

Instituto Superior Técnico, University of Lisbon EQF level 6 | Final Grade: 17/20 | Credits: 180

Research Experience

2025.03 - ongoing First Stage Researcher (R1) | Project WebCap.

INESC-ID, Lisbon, Portugal

Currently working on the scraper that will collect data from the web via automated program synthesis.

2023.10 - 2024.10 First Stage Researcher (R1) | Project SmartRetail.

INESC-ID, Lisbon, Portugal

Formalized and implemented a symbolic fuzzer to generate security exploits for Node.js applications. Submitted the paper "Automated Exploit Generation for Node.js Packages", accepted at PLDI'25.

2023.02 - 2023.07 First Stage Researcher (R1) | Project DIVINA.

INESC-ID, Lisbon, Portugal

Developed a reference interpreter for the 6th version of the JavaScript standard, which served as the foundation for a new symbolic execution tool for JavaScript.

Teaching Experience

Spring 2023 Teaching Assistant | ESof2: Software Engineering.

Instituto Superior Técnico, University of Lisbon

Fall 2022 **Teaching Assistant | FProg-2: Foundations of Programming.**

Instituto Superior Técnico, University of Lisbon

Spring 2022 **Teaching Assistant | ESof2: Software Engineering.**

Instituto Superior Técnico, University of Lisbon

Publications

PLDI'25 Automated Exploit Generation for Node.js Packages.

F. Marques, M. Ferreira, <u>A. Nascimento</u>, M. Coimbra, N. Santos, L. Jia, J. Fragoso Santos. In Proc. of the 46th ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI 2025)

Citations: 1 Core Rank: A* Length: 26 pages

Fellowships & Awards

2025.08.02 **FCT PhD Scholarship**, Fundação para a Ciência e Tecnologia, Portugal. Fully-funded PhD scholarship

2022.07.01 Winner of an Award on a Software Engineering Context, *Celfocus/Novabase*. Together with Duarte Bento and Susana Monteiro.

Academic Achievements & Recognitions

2021/2022 Academic Merit Diploma, Instituto Superior Técnico, University of Lisbon
2020/2021 Academic Excellency Diploma, Instituto Superior Técnico, University of Lisbon
2019/2020 Academic Merit Diploma, Instituto Superior Técnico, University of Lisbon
2018/2019 Academic Merit Diploma, Instituto Superior Técnico, University of Lisbon

Volunteering & Other Activities

2023.06.23 - **Sports Association Board Secretary**.

ongoing B.W.C.R – Clube de Calistenia das Caldas da Rainha, Caldas da Rainha, Portugal

Responsible for overseeing internal administrative operations, coordinating board meetings, and managing official documentation.

2020/2021 Mentoring Programme 2020/21.

Núcleo de Apoio ao Estudante (NAPE), Instituto Superior Técnico, University of Lisbon

Other Skills

Languages Portuguese (native speaker) • English (professional proficiency)

Programming OCaml, JavaScript/TypeScript, C/C++, Java, Python