Luís Tavares

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SUMMARY

Keen in good and maintainable software development and complex problem-solving, deep learning enthusiast. Eager learner always with an eye on innovative software solutions.

WORK EXPERIENCE

SingleStore — Lisboa, Portugal
Software Engineer — Oct 2023 – present

- Working on SingleStore DB Cloud service as a backend engineer.
- Technologies: Go, GraphQL, Kubernetes, CI/CD.

Faculty of Engineering, University of Porto — Porto, Portugal
Software Engineer and Researcher — Sep 2020 – May 2023

- Led the development of an automatic test-based assessment tool to grade students in a first-year course unit.
- Responsibilities included researching this type of system, developing it from scratch, and maintaining the system.
- Since early 2021, the system has been used in the higher education environment, and over 1000 students have interacted with it.
- Technologies: Python, flask, MongoDB, JavaScript, Bash, TypeScript, Express.js, Next.js, Docker, NGINX, Google Cloud, GitHub actions, Kubernetes.

Vodafone — Porto, Portugal
Software Engineer Intern — Aug 2021 – Oct 2021

- Took part in developing a call recording platform as a full-stack developer in an international team.
- Technologies: Python, flask, PostgreSQL, TypeScript, Express.js, Next.js, Docker, NGINX, GitHub actions.

EDUCATION

BSc and MSc Degree in Informatics and Computing Engineering — Porto, Portugal
Faculty of Engineering, University of Porto, Portugal — Sep 2019 – Jul 2023
Final grade: 17.3/20.0
Extra comments: Course also know as "Computer Science and Engineering".

MSc Degree in Computer Science and Engineering — Milan, Italy
School of Engineering, Polytechnic of Milan, Italy — Sep 2022 – February 2023
Final grade: 26.6/30.0
Extra comments: Erasmus+ mobility program.

PUBLICATIONS

Tavares., Luís et al. (2023). "Automatic Test-Based Assessment of Assembly Programs". In: *Proceedings of the 18th International Conference on Software Technologies - ICSOFT*. INSTICC. SciTePress, pp. 572–579. ISBN: 978-989-758-665-1. DOI: 10.5220/0012129100003538.

PROJECTS

Portuguese Media Bias Index
Project type: MSc thesis — Sep 2022 – Jul 2023

- Web platform that portrays how some forms of bias are identified in Portuguese news articles. The identification is done through machine-learning models that have been carefully developed to identify such biases.
- Technologies: Python, Jupyter Notebooks, pytorch, Next.js, MongoDB, Docker.

Yet Another (ARM) Plagiarism [Link to Demo](#)
Project type: Personal project Mar 2021 – Jun 2021

- yapy is a tool used to detect and discourage the punishable copying of student exercise programs written in ARM64 (AArch64).
- It takes advantage of concepts related to compilers to parse ARM64 code using a context-free grammar and compare the tokens.
- Technologies: Python, ARM64, Lark.

COURSE-RELATED PROJECTS

Distributed timeline (Social Network)
Project type: Large Distributed Systems course unit project Feb 2022 – Jun 2022

- Distributed timeline system with a REST interface to interact with the system.
- Technologies: JavaScript, Node.js, REST, Express.js, libp2p.

Java– compiler (Compiler for a subset of Java)
Project type: Compilers course unit project Feb 2021 – Jun 2021

- Parsing, lexical and semantic analysis using JavaCC. Code optimizations.
- Technologies: Java, JavaCC, Jasmin.

Company route planning [Link to Demo](#)
Project type: Algorithm Design course unit project Feb 2020 – Jun 2020

- System to calculate best routes for a company to pick up their workers.
- Multiple graph algorithms for routing.
- Machine learning algorithm implementation to cluster the workers by location to assign a vehicle to a specific zone.
- Technologies: C++, GoogleTest, GitHub actions, Travis-CI.

SKILLS

Technical	Go, Python, C, C++, Java, JavaScript, TypeScript, SQL, Linux, Bash, Node.js, React, Next.js, Express.js, Jupyter Notebooks, MongoDB, Docker, flask, NGINX, GitHub actions, Git, PostgreSQL, MySQL, Kubernetes, RabbitMQ.
Languages	Portuguese (Native), English (Full Professional Proficiency – C2).