INESC TEC | Research Grant (AE2025-0155)
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Job Title	INESC TEC | Research Grant (AE2025-0155)
Department	HUMANISE
Institution	INESC TEC
	PORTO, , Portugal
Date Posted	Apr. 4, 2025
Application Deadline	Apr. 16, 2025
Position Start Date	Apr. 3, 2025
Job Categories	Graduate Student
Academic Field(s)	Engineering - Other
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Apply By Email	
Job Description	

Research Opportunities

Informatics, Electronics and Digital Systems

Work description

1. Familiarization with the LLVM / MLIR ecosystem, especially with the current state of the in-house compilation tools that will be the target of the work.
2. Study the current linking method, which combines low-level code (LLVM-IR code or standard dialects), originated by C/C++ input, with code generated through the custom DSL and dialect.
3. Propose and implement an improvement to the linking process, to generate RISC-V binaries

compatible with the target system.
4. Propose and implement code generation for an additional target (RISC-V with V extension), to demonstrate the reuse of the intermediate build layers for different targets.
5. Write the scholarship activity report.

Academic Qualifications

- Degree in computer engineering or related field.
- Master's student in computer engineering or related field.

Minimum profile required

- C/C++ programming experience.

Preference factors

- Experience in compilers (parsing, and IRs), and LLVM and/or MLIR ecosystem.
- Basic knowledge of assembly generation.

Maintenance stipend: € 1040.98, according to the table of monthly maintenance stipend for FCT grants , paid via bank transfer. Grant holders may be awarded potential supplements, according to a quarterly evaluation process (Articles 19, 21 and 22 of the Regulations for Grants of INESC TEC and Annex II), up to a maximum limit of 50% of the monthly maintenance stipend.

INESC TEC supports costs with registration, enrolment or tuition fees, during the grant duration, under the terms established in the internal document: "Payment of Tuition fees to grant holders".

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The grant holder will benefit from health insurance, supported by INESC TEC.

Application Period

Since 03 Apr 2025 to 16 Apr 2025

Centre

Human-Centered Computing and Information Science

Scientific Advisor

João Bispo

What we offer

- **Multicultural and collaborative environment**
- A multicultural, international and collaborative environment that makes it easier to exchange ideas, work in networks and create synergies.
- **International projects**
- The possibility of working in international projects with some of the most important companies in the field.
- **Mentoring**
- Mentoring with the best researchers in the fields of electrical and industrial engineering, bioengineering, information technology and physics.
- **Self Improvement**
- The possibility of participating in international conferences, workshops, seminars and vocational training.
- **Other Benefits and Perks**
- Flexible working time, health insurance, discounts in hotels, transportation, etc.
- **Informal Events**

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- Annual informal events, such as the multicultural party.

For more information: Click Here

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Portugal

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