103_CS_RRE

Job Reference

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Position

Microarchitecture and RTL Engineers (RRE)

Data de tancament

Divendres, 30 Novembre, 2018

About BSC

The Barcelona Supercomputing Center - Centro Nacional de Supercomputación (BSC-CNS) is the leading supercomputing center in Spain. It houses MareNostrum, one of the most powerful supercomputers in Europe, and is a hosting member of the PRACE European distributed supercomputing infrastructure. The mission of BSC is to research, develop and manage information technologies in order to facilitate scientific progress. BSC combines HPC service provision and R&D into both computer and computational science (life, earth and engineering sciences) under one roof, and currently has over 500 staff from 44 countries.

Look at the BSC experience:
BSC-CNS YouTube Channel
BSC-CNS Corporate Video
Let's stay connected with BSC Folks!

Context And Mission

BSC is looking to expand its expertise towards the design and verification of IPs to be integrated into top-level HPC SoC designs. The immediate responsibilities of this group will be related to the European Processor Initiative, which aims to design and execute a roadmap for a future European low power processor for HPC and automotive. In the immediate term, this team will be responsible for defining an architecture road map for a RISC-V accelerator to be used in conjunction with a general purpose processor for Exascale, which is being developed within the same European initiative. In the medium/longer term the team will be expected to cover all of BSC’s RTL design and validation needs.
Key Duties

We use vertical approach, so we are looking for several proactive and independent profiles able to handle the whole design chain: understand the problem to be solved, code it in some HDL and take it down at RTL level. We believe this approach give us control and fast feedback on architectural parameters that are relevant in HPC (e.g. area, timing, power consumption).

- RTL/Microarchitecture Engineers

You should have strong RTL and (micro-)architecture experience as well as interest into RISC-V design for applying to this position: processor pipeline, cache, vector unit and memory controller will be your basic components within the design and verification group at BSC.

- Verification Engineers

You should have dirty hands with verification and breath microarchitecture details to apply to this position. RISC-V design will be our main focus, including base ISA, privileged ISA, vector extensions, cache coherency protocols and full SoC verification.

- FPGA Design Engineers

We plan to have FPGA-based fast cycles of releases of IPs in order to enable system software development and test kernels of HPC applications and we are seeking profiles interfacing with the design and verification team able to implement, “glue” and test IPs on FPGA.

Requirements

- Education
  - BSc degree or higher in Computer Science / Computer Engineering, Physics or Mathematics

- Essential Knowledge and Professional Experience
  - Provable experience in chip design, verification, validation and bring-up with state-of-the-art technologies within industry and academia

Conditions

- The position will be located at BSC within the Computer Sciences Department
- We offer a full-time contract, a good working environment, a highly stimulating environment with state-of-the-art infrastructure, flexible hours, extensive training plan, tickets restaurant, private health insurance, fully support to the relocation procedures
- Salary: we offer a competitive salary commensurate with the qualifications and experience of the candidate and according to the cost of living in Barcelona
- Starting date: ASAP

Applications Procedure

All applications must include:
- A motivation letter with a statement of interest, including two contacts for further references - COMPULSORY - Applications without this document will not be considered
- A full CV including contact details

**Deadline**

The vacancy will remain open until suitable candidate has been hired. Applications will be regularly reviewed and potential candidates will be contacted.

**Diversity and Equal Opportunity Employment**

BSC-CNS is an equal opportunity employer committed to diversity and inclusion. We are pleased to consider all qualified applicants for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability or any other basis protected by applicable state or local law.

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