**154_CS_CAOS_R0**

## Job Reference

154_CS_CAOS_R0

## Position

Undergraduate Student for GPU Porting - R0

## Data de tancament

Dimarts, 31 Juliol, 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](https://www.youtube.com/c/BSCCNS)
- [BSC-CNS Corporate Video](https://www.youtube.com/watch?v=Q5v4z5G5gQ)
- Let's stay connected with BSC Folks!

### Context And Mission

The Computer Architecture and Operating System group at the Barcelona Supercomputing Center aims at carrying out research on programming models for critical embedded systems in charge of controlling fundamental parts of cars, airplanes and satellites. Our work is mainly done in the context of bilateral projects with several processor companies as well as several European-funded projects. For a complete list of publications of the group in the last years, please visit: [www.bsc.es/caos](https://www.bsc.es/caos)

The objective of this position is to contribute to the porting of some automotive applications, mostly related to autonomous driving, to GPU hardware/simulation platforms and programming paradigms such as OpenCL and/or Brook.

### Key Duties
- Learn how to compile and run some automotive applications and libraries.
- Port those applications (or excerpts) to specific GPU hardware platforms or simulators.
- Port those applications from CUDA to other programming paradigms such as OpenCL and/or Brook.

Requirements

- Education
  - Current bachelor student on Computer Sciences or Telecommunications, in the last years of the Grade
- Essential Knowledge and Professional Experience
  - Knowledge on C/C++ programming, basic knowledge on GPU architecture and programming
- Competences
  - Problem-solving, pro-active, result-oriented work attitude
  - Good communication skills including a good command of the English language (written and spoken)

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: 01/09/2018

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.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

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