


## Company Description

The Basque Center for Applied Mathematics - BCAM is an international research centre in the field of Applied Mathematics that was founded in 2008 by the Basque Government, the UVP/EHU and Ikerbasque. It also has the support of the Provincial Council of Bizkaia and Innobasque. It has a staff of more than 90 researchers of 25 nationalities working in various areas, from data science to mathematical modelling, and has twice been accredited as a centre of excellence "Severo Ochoa" by the State Research Agency, a distinction awarded to the best research institutions in the world in their field. [www.bcamath.org](http://www.bcamath.org)

## Information

 Deadline: 2019-09-13  
 Category: Academia  
 Province: Bizkaia

 Country: Basque Country  
 City: Bilbao

## Company

BCAM



## Main functions, requisites & benefits

### Main functions

We are looking for 2 research technicians to join the Basque Center for Applied Mathematics' Knowledge Transfer Unit. Candidates will collaborate in knowledge transfer projects with industry and research entities. Specifically, the selected candidates will work on the following projects:

1. Research Technician in Heuristic Optimization for Emergency Healthcare This project deals with the analysis of the ambulances service in order to identify its strengths, weaknesses, opportunities, and threats related to its attention planning management. The allocation of a limited set of resources (ambulances) to a large and random set of services (attention) is obviously a problem that requires mathematical and computational techniques for its analysis and optimization. Some of the more frequent problems are the system saturation, optimal allocation decisions, efficient localization of the bases, optimal transport routes, among others. Since they are, in general, NP-hard problems, heuristic algorithms have been developed for solving them in a reasonable time. More info: <http://www.bcamath.org/en/research/job/research-technician-in-heuristic-optimization-for-emergency-healthcare>
2. Research Technician in Applied Statistics - Estimation of the distribution of the accumulated cost per patient in the presence of censored data This project deals with the estimation of the distribution of the accumulated cost per patient according to diseases, the received medical allowance, etc. The objective is not to estimate the, e.g., average cost, but to estimate the entire distribution. This will allow us to fully characterize the population of interest, which will provide information that we seek to further explore and study in detail. In addition to defining the methods for estimating the accumulated cost per patient, the project aims at defining and automating the workflow that will allow obtaining the data in the appropriate format for the subsequent analyses. In doing so, we seek to allow the routine use of the proposed methodology. More info: <http://www.bcamath.org/en/research/job/research-technician-in-applied-statistics>

### Requisites

Candidates should have a Master's degree in Statistics, Computer Science, or a closely related field and a strong background in Statistics and Mathematics

### Benefits

The gross annual salary of the Fellowship will be 18.000 - 26.000€. There is a moving allowance for those researchers that come from a research institution outside the Basque Country from EUR 500 to EUR 1.000 gross.