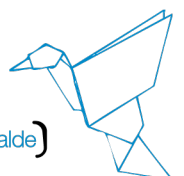


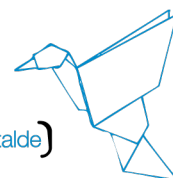
Research Technician in Development of a Three-Dimensional Environment for Crowd Dynamics Visualization in Casco Viejo (Bilbao)

Job Offer	
Offer	The Basque Center for Applied Mathematics is looking for a Research Technician (RT) position within the CFD-MS research group led by Ikerbasque Professor Marco Ellero. The selected candidate will work on the DigiCasco project, which aims to develop software for simulating pedestrian dynamics in the Old Town of Bilbao (Casco Viejo). This software will be used to analyze pedestrian mobility patterns in the Old Town of Bilbao, considering different types of agents (e.g., residents and tourists) with distinct motivations and navigation behaviors. A key aspect of the project is the creation of a realistic virtual environment in which the simulated agents move, as well as the development of accurate pedestrian animations. The candidate will be responsible for building a three-dimensional model of Casco Viejo using Unity or similar tools, integrating and refining representations of its main tourist landmarks based on data extracted from Google Earth and contributing to the implementation and improvement of pedestrian movement animations. Additional tasks may include building other 3D geometries in Unity for pedestrian dynamics visualization. The tasks to be carried out will be: • Implementation of Casco Viejo's 3D virtual environment in Unity. • Extract Casco Viejo's main touristic landmarks' photographic textures from Google Earth or similar. • Mesh cleanup of the imported photographic textures, reducing the number of polygons to make them smoother and more computationally efficient. • Implementation of pedestrian movement animations. • Creation of avatars and textures for non-touristic buildings.
PI in charge:	Marco Ellero.



Salary and conditions:	The gross annual salary of the PhD student will be: 20.663 € <i>It will be your responsibility to file your annual income tax return with the Bizkaia Treasure Agency.</i> Additionally, we offer a moving allowance of up to 500€. Should the researcher have a family at the time of recruitment: 1. 1.000€ gross in a single payment will be offered (you must be married-official register or with children and the certificate to prove it must be sent). 2. 600€ gross per year/per child (up to 2 children) will be offered (the certificate to prove it must be sent). <i>Free access to the Public Health System in Spain is provided to all employees.</i>
Nº Positions offered:	1
Duration of contract:	4 months
Deadline:	November 5, 2026, 14:00 CET (UTC+1)
How to apply:	Applications must be submitted online at: https://joboffers.bcamath.org

Scientific Profile Requested	
Mandatory requirements:	Degree in Physics, Mathematics, Computer Science, Engineering, or related field
Scientific profile:	Although the requirements can be adapted to the different candidate profiles, a strong candidate needs to possess the following skills: • Background in Digital Arts or a related field. • With experience in 3D modelling and visualization. • Knowledge of animation and interactive 3D environments. • Proficiency in Unity or similar tools.).



Skills and track-record:	• Good interpersonal skills. • Demonstrated ability to work independently and as part of a collaborative research team. • Fluency in spoken and written English.
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Application and Selection Process	
Formal requirements:	The selected candidate must apply before the deadline online at: https://joboffers.bcamath.org The candidates that do not fulfil the mandatory requirements will not be evaluated.
Application:	Required documents: ▪ CV and academic record ▪ Letter of interest, including research interests ▪ 2 recommendation letters
Evaluation:	Based on the documents provided by each candidate, the committee will qualitatively evaluate: • alignment of the training and career of the candidate to the position offered • recommendation letters • letter of interest • other academic and scientific merits

Date of start:	As soon as possible
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