

## JOB OFFER DESCRIPTION

### POSITION

ENGINEER FOR 3D IMAGE PROCESSING  
AND ARTIFICIAL VISION

### OBJETIVES

Doitplenoptic develops 3D imaging systems based on light field imaging (also known as plenoptic imaging) for applications in optical microscopy.

The purpose of the position is the development of new algorithms for processing and reconstruction of 2D and 3D images from the registered plenoptic image and their integration with classical algorithms of artificial vision and plenoptics. The tasks will be carried out together with an electronic engineer and under the supervision of the CTO.

The candidate will contribute to the improvement of our products, especially the quality of the reconstructed 3D images and the accuracy of the quantitative data presented to the user, and will contribute to increase our patent portfolio.

### FUNCTIONS

- Development of 3D reconstruction algorithms and improvement of the plenoptic image.
- Integration of plenoptic algorithms with conventional algorithms in artificial vision for identification and quantification of the objects present in the scene: shape, size, volume, position in 3D space ...
- Development, together with the technical team, of techniques and algorithms for calibration of image capture for the improvement of quantitative data.
- Development, together with the technical team, of techniques and algorithms for improving image quality.
- Development, together with the technical team, of the software and the user interface to show the user the 3D image reconstructed in different ways: perspectives, volume, depth maps, etc., as well as the calculated quantitative data.
- Management of the tasks of their developments.
- Reporting tasks progress to the CTO.

### COMPETENCIES

#### HARD SKILLS:

- High programming capacity in C ++ and MATLAB.
- The knowledge of JAVA and Python are also positive.
- Image processing and artificial vision, especially 3D image.
- Knowledge of multiview systems (stereo pairs, photogrammetry ...), especially those based on the light field imaging technique.
- Knowledge in calibration of multiview systems, especially those based on light field imaging.

#### SOFT SKILLS:

Proactivity  
Teamwork  
Agile in problem solving  
Communication skills: oral and written.

Commitment Honesty Innovative capacity Organized Entrepreneur	
<b>WORK EXPERIENCE</b>	
<b>ESSENTIAL</b>	<b>VALUABLE</b>
Proven experience (work or doctorate or master's degree) in the development of professional solutions or high added value for image processing and artificial vision, especially 3D image. Programming experience in C ++ and Matlab	Lightfield imaging experience JAVA knowledge Python knowledge Software development and user interface
<b>EDUCATION</b>	
<b>ESSENTIAL</b>	<b>VALUABLE</b>
Degree in Computer Science, Telecommunications, Signal Processing or similar PhD / Master's Degree	PhD / Master's degree  Project Management English
<b>OFFER</b>	
1.- Flexible working day 2.- Indefinite contract 3.- Salary from 24.000€ /gross commensurate to experience 4.- Career Plan	

Please send your resume and cover letter explaining your relevant experience related to the position to: [c.gil@doitplenoptic.com](mailto:c.gil@doitplenoptic.com) CC: [a.tolosa@doitplenoptic.com](mailto:a.tolosa@doitplenoptic.com)



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