

Laboratory: LAAS-CNRS (Gepetto), Toulouse, France

Thematic: Motion generation, robotics, computer animation

Keywords: Motion generation, robot and manikin programing

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Title: Motion-generation software engineer

We are developing for 5 years an open-source motion generation software for robotics and computer animation, and more specifically for anthropomorphic robots and avatars. This software provides efficient methods to control the full dynamics of the system whole body, enabling the programmer to simply obtain fast and balance movements, biped walk and multi-contact. The movements are generated in real-time and can be applied to control a physical robot or an interacting avatar.



We are searching for a chief engineer to take the lead of the development team. In addition to the development work, the engineer will organize the work of the development team and the users; he will build the demonstrators and the tutorials making the software more visible. Depending on the applicant skills and wills, he will animate the user community and provide some training session outside the lab. Beyond the current academic community of user, we would like to extend the framework to industrial needs, based on the current collaboration of Gepetto team (robotics and aerospace industry).

Requirements:

- PhD degree in EE/CS, biomechanics or applied mathematics
- Expertise in biomechanics or a strong experience in robotics or numerical computing
- Good programming skills in C/C++
- A strong mathematical or control background is desirable

Environment:

Located in the University town of Toulouse, in the south-west of France, the Gepetto group belongs to the CNRS-LAAS, laboratory for the analysis and architecture of systems, a 640 man-strong research center with about 90 people working in robotics. Among our robot fleet, we have access to HRP-2, the only full-size walking humanoid robot in France, while two other humanoid robots are expected within the year. The laboratory benefits from strong connections to the adjoining universities and the space and aeronautics industry.