Steve Tonneau

Post Doctorate - Engineer
Computer Graphics and Robotics

Research experience

MARCH 2015 - (SEPTEMBER 2016)
LAAS-CNRS, Toulouse, France
Post-Doctorate – national project Entracte (ANR)

The objective of those 18 months is to adapt the multi contact planning methods I developed during my PhD from Computer animation to anthropomorphic robots such as HRP-2. This implies developping skills regarding optimization and optimal control methods, in collaboration with Nicolas Mansard. In parallel, I pursue my Computer Graphics activity by coordinating a new collaboration between LAAS and The University of Edinburgh on online synthesis of contact rich motions in dynamic environments.

DECEMBER 2011 - FEBRUARY 2015
IRISA, Rennes, France
Phd

Autonomous locomotion for virtual characters in constrained environments. This thesis objective is to improve the motion autonomy of 3d characters in applications such as videogames. We therefore propose new methods and heuristics to generate the animations that allow them to interact with complex environments in a believable manner (car outgress, climbing tasks...).

DECEMBER 2011 - FEBRUARY 2015
INSA, Rennes, France
Teachings

– Supervising of student projects on Virtual Reality;
– Functional programming (Scheme);
– Databases;
– Objective Caml programming language.

Engineer experience (3.5 Years)

JANUARY 2010 – OCTOBER 2011
Masa Group, Paris, France
Project Manager - Virtual Worlds

Form project : AI-driven animation for 3d characters using the MasaLife AI middleware. Integration with Morpheme animation framework and AI.implant pathfinding solution within technical demonstrations.

JULY 2008 – DECEMBER 2009
Masa Group, Paris, France
R&T Engineer - Behavior modeller

Brain project : Artificial Intelligence middleware for serious games.
– Knowledge base designer;
– Maintenance on the decisional engine;
– Behavior libraries design for various demonstrations.

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Education

2005 – 2008	**Master in Computer science** INSA ENGINEERING SCHOOL *Rennes, France*	
2005 – 2008	**"Game design and Development" Master classes** ABROAD SEMESTER AT RIT *Rochester, USA*	
2003 – 2005	**2 year diploma on Mathematics** UNIVERSITY OF MONTPELLIER II *Montpellier, France*	

Computer science skills

ENGINES	Unity 3d, Morpheme, ODE, Bullet
LANGUAGES	C++, Java, C#, Prolog, Lua, Scheme, O-Caml
DATA	PostgreSQL, PostGIS
VERSION CONTROL	GIT, SVN

Communication skills

ENGLISH	fluent
PORTUGUESE	good
SPANISH	fair

Publications

CONF.	**Task efficient contact configurations for arbitrary virtual creatures.** Tonneau, Pettré et Multon *Graphics interface 14, conference*
CONF.	**A Reachability-based planner for sequences of acyclic contacts in cluttered environments.** Tonneau, Mansard, Park, Manocha, Multon et Pettré **submitted to** *ISRR '15*
JOURNAL	**Using task efficient contact configurations to animate creatures in arbitrary environments.** Tonneau, Pettré et Multon *Computers & Graphics vol 45*