Tuur Stuyck

Contact Information

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Honors and Awards

Multiple award winner at film festivals ranging from Canada to South-Korea. I have made 4 short films which all won prizes.
Second place ACM SIGGRAPH Research Competition 2016

Books

Cloth Simulation for Computer Graphics
Morgan & Claypool Publishers
www.amazon.com/Simulation-Computer-Graphics-Synthesis-Computing/dp/1681734117

Publications and Talks

Real-Time Oil Painting on Mobile Hardware, full paper CGF, invited talk Eurographics 2017
Art-Directable Simulations, Invited talk TU Munich, Sep 2016
Model Predictive Control for Art-Directable Fluids, SIGGRAPH 2016 Poster
Sculpting Fluids: A New and Intuitive Approach to Art-Directable Fluids, SIGGRAPH 2016 Poster
Digital Painting Classroom: Learning Oil Painting Using a Tablet, SIGGRAPH 2016 Short Talk
Real-Time Oil Paint Simulation and Rendering on Mobile Hardware, Invited talk Arenberg Youngsters Seminar, Sep 2015

Experience

Facebook Reality Labs (Oculus Research)

Research PostDoc **July 2018 - Current**
Cloth Simulation
www.oculus.com/research/

Pixar Animation Studios

Research PostDoc **October 2017 - March 2018**
Artistic Control of Cloth Simulation

Research Intern (twice) **June 2016 - September 2016 and November 2016 - February 2017**
Artistic Control of Cloth Simulation
Research intern under the supervision of Tony DeRose and Kurt Fleischer
www.pixar.com

Adobe Research **May 2014 - February 2016**

Research Collaborator
Continued collaboration working on research internship project.

Research Intern at San Jose office, Ca, USA
Realistic oil paint simulator on iPad
I developed the formulas and implemented the entire application on GPU under the supervision of Sunil Hadap.
May - August 2014
www.adobe.com

Cyborn BVBA - Animation studio

Every summer from 2008 - 2013
www.cyborn.be

Computer Graphics Consultant
Over the years, I've worked at every stage in the production pipeline. I started as a modeller and animator but progressed towards physics-based simulation and research. At Cyborn I was responsible for the following:

- Technical consultant
- Computer Vision App (Android/iOS) development in collaboration with *Disney*
- Scripting and 3D computer animation

- Design and implementation of a specialised facial animation rig for feature film which performs an automatic mapping from motion capture data to facial animation.
- Contributed to feature film *Temper the mage* (modelling) and several commercials and short films

LMS International **Jul 2012 - Sep 2012**

Research Intern
Realization of a virtual environment for soft-real-time simulators with human interaction
www.lmsintl.com

Film festival jury

President of the jury MakingMovies film festival Nov 2011
www.makingmovies.be
Jury category video Kunstbende, Feb 2009, Feb 2010, Feb 2011
www.kunstbende.be

Education

KU Leuven

Ph.D. Computer Science
Oct 2013 - Oct 2017
Intuitive art-directable control for physics-based simulations

The use of physical simulations has become more common, resulting in highly realistic animations. However, while many advances have been made in the past to accurately simulate these effects obeying physical laws, there still remains a large amount of work to be done setting up simulations allowing the end-user control over a visually plausible end result. This work focuses on developing techniques to allow for controllable visual effects.

Teaching Assistantship:
[H07Z5a] Computer graphics 2013-2017
[G0Q37a] Applications of geometry in informatics 2013-2014
Supervised numerous master theses

Master of science in ENGINEERING
Sep 2011 - Jun 2013
Mathematical Engineering
Thesis: HR-Kinect a high-resolution dynamic 3D scanning for facial expression analysis
Magna Cum Laude

Bachelor of science in ENGINEERING
Sep 2008 - Jul 2011
Major: Computer Science — Minor: Electrical Engineering
Cum Laude

Languages

- Dutch : Mother tongue
- English : Fluent understanding, speaking and writing
- French : Fluent understanding, more than basic speaking and writing
- Spanish : More than basic understanding, speaking and writing

Computer Skills

- Languages: C++, Java, GLSL, iOS & Android development, CUDA
- Applications: Maya, 3ds Max, RealFlow, OpenGL ES, MATLAB, SIMULINK, MAPLE, LaTeX, common Windows database, spreadsheet, and presentation software
- Operating Systems: Linux, Windows, Mac