

# Marcel Stockli Contreras

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## EDUCATION

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Universidad de Guanajuato & Departamento de Matemáticas  
Bachelor in Computer Science.  
Graduating in June 2013.

## WORK EXPERIENCE

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12/09- Present      GameCoder  
Co-founder, research and programmer, Guanajuato, Gto, México.  
Worked in: Graphics Engine main core, lighting, model animation and skinning, HDR, particle system, deferred rendering, post processing effects.

07/10- 12/10      CIMAT  
TA, Teacher Assistant  
Professor José Luis Marroquin Zavaleta

## MAJOR PROJECTS

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Winter 2010-Present      Development of “GameCoder Engine”, graphics/video game engine.

Spring 2011-Present      3D full reconstruction of objects with textures and normal maps with kinect.

Spring 2011      Research: Marcel Stockli Contreras, Alberto José Ramírez Valadez, Alejandro Jiménez Martínez, “*Dual Sphere-Unfolding Method for Single Pass Omni-directional Shadow Mapping.*”, submitted to Siggraph 2011 poster session.

Spring 2011      *Development of “Kinemmings”, a Lemmings-style video game using kinect, where the Lemmings can collide with the user’s body.*

Winter 2010      3D Real-Time Navier-Stokes simulation with GPU ( fire rendering ).

Winter 2010      Talk and research: Marcel Stockli Contreras, Alberto José Ramírez Valadez, “*Motion Planning in video-games: Navigation Mesh and pathfinding with behavior*”, Taller de Planificación de movimientos, CIMAT

Winter 2010      *Real-Time ray-tracing with GLSL.*

Winter 2009      “*Deep in the savhanna*” a cheetha simulator with two wii contols. Submitted to SIGGRAPH 2009 research challenge.

## TECHNICAL SKILLS

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|------------------------|-----------------|
| Programming Languages: | API/SDK:        |
| C/C++ 6 years          | OpenGL: 4 years |
| Java 4 years           | OpenCV: 4 years |
| GLSL 3 years           |                 |
| CUDA 6 months          |                 |

## MAJOR AWARDS

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1<sup>st</sup> place ACM ICPC Regional Contest 2010, México, Centro America y el Caribe.  
IOI ( International Olympiad in Informatics ) 2007 Zagreb, Croatia Contestant  
IOI ( International Olympiad in Informatics ) 2008 Cairo, Egypt Contestant  
25<sup>th</sup> place in the international TopCoder High School tournament, Indianapolis, Indiana.  
2<sup>nd</sup> place in the OMI ( National Olympiad in Informatics ) 2007, San Luis Potosi.  
2<sup>nd</sup> place in the OMI ( National Olympiad in Informatics ) 2008, Torreon.

Currently ranked as the second best program in Mexico for the most prestigious programming contest: [TopCoder Inc.](#)

Qualified to ACM ICPC world finals contest, with the team "Manowar" representing Mexico, Central America and Caribbean, to be held in Orlando Florida, May 2011.

## Links (Videos)

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[Dual Sphere-Unfolding Method for Single Pass Omni-directional Shadow Mapping.](#)

[GameCoder Engine Reflections](#)

[Navier-Stokes real-time simulation.](#)

[Kinemmings](#)

[Real-Time Ray-tracing.](#)