

## Ricardo Sisnett Hernández.

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### Education:

Instituto Tecnológico de Estudios Superiores de Monterrey, Campus Guadalajara.  
Bachelor in Computer Science and Technologies with Specialization in **AI** and **Computer Graphics**(2005 -2009).  
Cumulative GPA: 94/100

### Work Experience:

July 2010 – Present – **Senior Member of Technical Staff at Oracle** – Working as a Software Developer for the **Virtual Operative System (VOS)** layer of the Oracle RDBMS. Owner of the **process management** layer. Main achievements include the redesign of the process spawning protocol for the RDBMS in Linux, Solaris and Windows platforms, NUMA aware process creation and asynchronous spawning for Oracle processes.

July 2009 – May 2010 – **HPC Research Intern at Intel** – Worked as intern in the **Visual Computing Group**. Developed my own **research project** on Parallel Genetic Algorithms using **multi-process** and **multi-threaded** libraries in **C++** such as **MPI**, **OpenMP** and **Intel MKL**. Project was published in two international conferences. Worked with the team testing the software stack for the next-gen of Intel **GPGPUs** to create highly parallel experiments to stress the graphic cards.

May – Dec 2008 – **Internship at IBM** – Developed a project that reported i5/OS and System Z problems and downloaded patches to fix them. **Worked as Java Programmer for the OSGi compliant plugin.**

### Teaching Experience:

September 2010 – July 2011 – **Lecturer at Universidad de las Artes Digitales (University of Digital Arts)** Teaching the classes “**Artificial Intelligence for Games I and II**” and “**Introduction to Operative Systems**” to students majoring in **Game Development**

### Major School Projects:

Fall 2009 – **Unreal Learning Environment (UnreaLE)** – Machine Learning Final Project. Modded the artificial intelligence of **Unreal Tournament 3** to use a Neural Network to learn from observation instead of using the state machine the game shipped with.

2009 – **Research Intern** - Worked with PhD Gildardo Sanchez in the areas of **Visual computing**, **Motion Planning / Path Finding** (Probabilistic Mapping) and **Computational Intelligence**. Work led to the publication of results in a book chapter and a poster the **National Serious Games Winter School Workshop**.

2008 – **Chess Board Game**. Developed from scratch to full demo a chess board game as an Artificial Intelligence Project. It can be played versus AI or another human player. Entirely developed on **Adobe Flash/Flex ActionScript 3.0**

### Technical Skills.

**Advanced:** ActionScript 3.0, Python, C/C++

**Intermediate :** C#, UnrealScript, Java, Ruby, Bash

**Basic:** Lisp, SQL, Objective-C, Assembly (x86, SPARC)

**Platforms:** MacOS X, Windows, Linux, Solaris

**Frameworks:** Django, OpenGL, MPI, OpenMP, Maya API, DirectX, Unreal Engine 3, Unity3D, Win32, POSIX.

**Awards and Leadership.**

Outstanding results National Evaluation Exam for Undergraduates (Ceneval)  
3<sup>rd</sup> Place ACM Mexican Pacific Pre-Regional Contest Fall 2009  
9th Place ACM Regional Contest Fall 2008  
1st Prize Local ACM Programming Contest Spring 2006  
Semifinalist, Project Hoshimi at Microsoft's Imagine Cup 2006.  
Student Volunteer Scholarship Granted at OOPSLA 2007, 2008 & 2009  
ITESM University Orchestra Member. (Violinist and Percussionist)

**Publications**

"Parallel Genetic Algorithms in a Cluster Architecture: A Case Study", Paper, International Super Computing Conference in Mexico 2011 Proceedings, Sisnett.

"Intelligent Motion Planning for Virtual Characters", Poster. Serious Games Winter School. Sisnett, Sanchez.

"Multi-robot path finding in dynamic environments." Chapter in Mobile Robots Navigation. InTech. Astengo, Sanchez, Calzada, Sisnett.

**Conferences and Talks**

"Parallel Genetic Algorithms to Optimize Double MEWMA Charts", International Super Computing Conference in Mexico 2010, Sisnett, de Luna.

"Parallel Genetic Algorithms: A Case Study" at the Intel HPC Week. ITESM Campus Guadalajara 2010.

"High Performance Computing Applications: Intel GDC Cluster" at the International Conference on Engineering. UVM 2009

**Languages.**

Spanish (Mother Tongue)  
English (653 TOEFL)  
German (First Stufen level)