

Jorge A. Toro

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SKILLS

Computer Graphics programming.

User interface design, prototyping, and usability testing.

Object-oriented design and programming.

Programming tools: C, C++, C#, Visual Basic, .NET, Java, Delphi, SQL.

Graphic libraries: OpenGL, OSF/Motif, OpenLook, XWindows, XToolkit, UNIX Curses, Phigs.

CG and animation tools: 3DStudio Max, Adobe Premiere, Photoshop, and Illustrator, Macromedia Dreamweaver, Flash, and Fireworks. Operating systems: UNIX/Linux, Windows.

Strong written, analytical and interpersonal skills. Excellent team player and problem solver.

EXPERIENCE

Aug/05–present MAK Technologies, Cambridge, MA

Simulation Software Engineer

* Engaged in the design and implementation of an application to import and edit terrain databases for simulation scenarios (TdbTool).

Jan/99–Jul/05 DePaul University, School of CTI, Chicago, IL

Adjunct Faculty

* www project. Former member of a team in charge of redesigning the www portal of the Computer Science department. The team has three HCI members and four developers. Participated in the user interface design and content design.

* American Sign Language (ASL) Project. Active member of the American Sign Language research team which works in the design, programming, and testing of a digital translator for the deaf. The interface is being developed in Visual Basic, C++, and OpenGL, using 3Dstudio Max for the 3D visualization. (<http://asl.cs.depaul.edu>)

* Card Sorting Interface (CardZort). Author, designer, programmer, and tester of a card-sorting program for use in information architecture. The program has acquired broad acceptance by both the academy and industry around the world. Programming tools: Visual Basic. A new version is also under construction using C#. (<http://www.cardzort.com>)

* Educational Graphic Library. Worked with another faculty member in the design and programming of a graphic library to be used in the Computer Graphics courses. The library allows implementing CAD/CAM software in Windows using OpenGL and C++. Programming tools: C++ and OpenGL.

* Adjunct faculty. Instructor in the areas of Computer Science, Computer Graphics, and Human Computer Interaction.

1997–1998 Primestone, Ltda. Bogotá, Colombia

Software Engineer

* Project leader, energy data acquisition system. Re-designed and re-programmed the earlier versions of the company's leading product, PrimeRead, a computer application for energy data acquisition. The performance was improved by 100+%. Used Delphi and C/C++ to re-construct the user interface and perform low-level communication with the energy meters. The database was implemented using Interbase and Paradox. (<http://www.primestone.com>)

* Multi threaded scheduling system. Constructed a multi-process call scheduling system to perform automatic, simultaneous energy meter reading (up to 16 simultaneous readings were possible). Used Delphi and C for the interface and communication tasks. This module was later incorporated in the following versions of PrimeRead.

1994–1997 St. Martin University Bogotá, Colombia

Computer Center Director

- * Academic software project leader. Designed and implemented an automatic control system to be applied on academic planning, analysis and administration. Used Visual Basic and Access for UI and data management and C for the low-level programming. Worked in a team of four senior engineers and three junior engineers.
- * Colombian tolls project. Designed and developed an automatic control system for Colombian tolls. The time for customer service was improved by 70%. Used C/C++ for Windows 95. Worked in a team with two senior engineers.
- * Club management system. Designed and developed a software system to manipulate administrative and member information of a private social club. Used Visual Basic and Access for UI and data management.
- * Faculty. Instructed in different areas of Computer Science such as language programming (C), data structures using C, and Object Oriented Programming (using C/C++, XWindows, XToolkit, and Motif).

1992–1994 University of Los Andes Bogotá, Colombia

Adjunct Faculty

- * Part-time research faculty. Instructed in such different areas such as language programming (C, C++) and data structures using C/C++.
- * Msim project (robotics programming system). Worked in the development of a robot-programming environment, using a high level language based on tasks. Used C, OSF/Motif, Xwindows, Xtoolkit, and Phigs on a UNIX IBM RISC/6000 workstation.
- * PICAS project (3D CAD system). Worked in the development of an environment to design 3D quasi-axis-symmetric pieces for metal-mechanic industries. Used C, OSF/Motif, Xwindows, Xtoolkit, and Phigs on UNIX IBM RISC/6000 and Dec Alpha workstations.
- * Kidney image analysis for mice. Developed a system to perform analysis of kidney images from mice to research tumor pattern growth. Used C. Worked with other junior engineers.

EDUCATION

Ph.D. in Computer Science.

DePaul University, School of CTI - Chicago, IL, 2001 - 2005

- * Emphasis in computer graphics, software engineering, and human computer interaction.
- * Awarded a graduate assistantship for academic excellence (current GPA 4.0/4.0).

M.S. in Human Computer Interaction (with Distinction).

DePaul University, School of CTI - Chicago, IL, 1999 - 2001

- * Emphasis in user interface design and programming, and computer graphics and animation.
- * Awarded a research assistantship to work in the design and programming of a digital translator for the deaf (GPA: 4.0/4.0).

M.S. in Computer Science.

University of Los Andes - Bogotá, Colombia, 1992 - 1994

- * Emphasis in Robotics and Computer Graphics (CAD modeling).
- * Awarded a research assistantship to design and implement a UNIX graphical interface for a robot-programming environment (GPA 3.6/4.0).

B.S. in Computer Science.

University of Los Andes - Bogotá, Colombia, 1987 - 1992

- * Emphasis in Robotics and Computer Graphics (CAD modeling).

LANGUAGE SKILLS

English: Fluent

Spanish: Native Speaker