

## **Manuel Salas Cardenas**

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### **OBJECTIVE:**

To obtain a full time position to gain a challenging and rewarding experience in the computer engineering field with an interest in the software engineering area.

### **EDUCATION:**

2006 – Present University of Arizona, Tucson, AZ.

- M.S. Electrical and Computer Engineering
- GPA: 3.8
- Graduation date: May 2009

2002 – 2004 University of Arizona, Tucson, AZ.

- B.S. Computer Engineering
- Minors: Computer Science, Electrical Engineering, and Mathematics.

### **M.S. in ECE Thesis:**

- **AutoDEVS:** A Methodology for Automating Systems Development (Summer 2008).

### **Projects:**

- **AutonomousRoadSurvey:** Designed and implemented DEVS/SOA Based Modeling and Distributed Simulation for Autonomous Road Survey to detect roads and provide the mine topography.
- **RoadQualityMonitor:** Designed and implemented a DEVS-Based Modeling and Simulation for RoadQualityMonitor system for reducing maintenance expenses in a mine.
- **B.S. Senior Project:** Designed and Implemented a traffic management tool, using a development system provided by Intel and the Intel® IXP2800 network processor. The team received best presentation award.
- **Team Project:** Participated on the design and implementation of an electronic device, which made use of the MC68HC11D3 microcontroller and an LED screen.

### **WORK EXPERIENCE:**

**Research Assistant**, Arizona Center of Integrative Modeling and Simulation, Tucson, Arizona. January 2008, Present

- Responsibilities:
  - Develop AutoDEVS: A Methodology for Automating Systems Development.
  - Validate DEVS-Based Framework developed in the lab: DEVSJAVA, FD-DEVS, SES and DEVS/SOA.

**Software Engineer**, Modular Mining Systems, Inc, Tucson, Arizona. September 2007, Present

- Responsibilities:
  - Research and develop computer software systems in concert with mining product needs and requirements.
  - Analyze specifications and performance requirements, and review software architecture and design models to formulate and design computer software systems.
  - Develop and direct systems integration testing, procedures, configuration management, and documentation.
  - Formulate and design computer software systems within hardware and communications constraints, and in accordance with company development guidelines and best practices.

**Software Engineer Intern**, Modular Mining Systems Inc., Tucson, Arizona. May-August , 2006

- Responsibilities:
  - Develop software modules using technologies such as: .NET, JNI and Java under the Windows XP environment.
  - Test and debug the developed software modules.
  - Write documentation on how to deploy and use these modules.

**IT Technician**, Stuart Allan & Associates Inc., Tucson, Arizona. April – December 2005

- Responsibilities:
  - Provide Computer Software and Hardware support and Network maintenance/administration.
  - Use VBA to provide automated report generation.
  - Establish & Maintain connections for remote clients using VPN.
  - Perform periodic maintenance to the internal phone system.

**Computer Technician**, Public Internet Services, Hermosillo, Sonora, México

Summer 2003 & 2004

- Responsibilities:
  - Teach clients how to use Windows and PC functionalities.
  - Provide error prevention and maintenance for the computing facilities.
  - Design and install networks.

**EXTRACURRICULAR ACTIVITIES:**

- Recruiter at the University of Arizona Engineering Career Fair (2006-2007).
- Attended C++ Training for C programmers.
- Volunteer tutor for Mathematics and Spanish in Pima Community College, Tucson, AZ.
- SHPE (Society of Hispanic Professional Engineers) Member
- Teach the principles and detail development of guitar playing with emphasis on a variety of Mexican styles and guitar repertoire.

**RELEVANT COURSES:**

Engineering Senior Capstone, Artificial Intelligence, Software Engineering, Engineering Design, Object Oriented Programming, Computer Logic Design, Data Structures and Algorithms, Java Programming Language, Programming in C, Automata (Grammar & Language), Electronic Circuits, Circuit Theory, Engineering Systems Analysis, Computer Networks, Computer Architecture, Microprocessor Organization, Engineering Probability and Statistics, Advanced Engineering Math, Intro to Probability Models, Engineering Experiment Design, Survey Optimization, Theory of Linear Systems, Computer Based on Embedded Systems, Object Oriented Simulation/Discrete Models, Distributed Simulation, Continuous Systems Modeling.

**SKILLS:**

Bilingual: Fluent in English and Spanish, Microsoft Office 2007, Windows: 98, NT, 2000, XP, XPe, CE. C, C++, C#, .NET, Windows Services, Java, JNI, Smalltalk, Verilog, UML, Visual Works, Assembly Language Motorola MC68HC711, ORCAD PSpice Circuit Simulation, Logic Works, Dakcs, Novell, VBA, Unix, HTML, Minitab, Lindo, Arena, System C, Thread X, DEVS, SES.