Jesus Molina

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Education

Master's in Software Engineer at University of Texas at El Paso

Expected: December 2017 GPA: 3.71/4.0 Research Assistant

Relevant courses:

- Software Project Management
- Software Requirements Engineering
- Formal Methods
- Data Mining
- Software Architecture and Design
- Software Integration and V&V
- Design and specification of Real-Time Systems (Using VxWorks)

Bachelor of science in Computer Science at the University of Texas at El Paso With a Minor of Math

Awarded: May 2016 Cum Laude Major GPA: 3.80/4.0 Research Assistant

Relevant courses:

- Artificial Intelligence
- Mobile App Development
- Computer Decision Making and Risk Analysis
- Software Reverse Engineering

Experience

Teaching Assistant, CS 3331 (Advanced Object-Oriented Programming), UTEP, (August 2016 – Present)

Assist students in acquiring knowledge and skills necessary to develop reusable, maintainable, and quality software by, as well as:

- Helping students with homework assignments (mostly programming exercises)
- Grading and creating exams, homework, and quizzes
- Lecturing
- Providing office hours for students' assistance
- Participating in Continuous Quality Improvement activities of the course

Teaching Assistant, CS 2401 (Elementary Data Structures), UTEP (January 2016 – May 2016)

Assist students in acquiring knowledge and skills necessary to understand fundamental computing algorithms, including searching and sorting; recursion; and simple data structures. Duties also included:

- Participating in course lectures and answering questions and clarifying topics
- Identifying, reporting, and working with struggling students
- Providing office hours for students' assistance

Research Assistant (Volunteer), Intelligent Agents and Strategic Reasoning Research Group (June 2015 – August 2015)

Participated in research activities within the Intelligent Agents and Strategic Reasoning Laboratory lead by Dr. Christopher Kiekitnveld. My work focused on refactoring of a heavily decayed simulation software system called GameSimulator.

- Followed a Waterfall process of eliciting requirements, developing design solutions, coding, and testing
- Developed in Java
- The resulting software had an improvement of over 200% performance, and followed strict engineering practices of modularization, and coupling.

Projects

- **Qar:** Car which learned to drive using Q-Learning algorithm developed in Java.
- **Sentiment Analysis for the Yelp Dataset Challenge:** Written in Python using Naïve Bayes and multiple resources such as pandas and Scikit
- **Motion detection security camera with Raspberry Pi:** Written in Python for the Raspberry Pi using a PiCamera and computer vision technologies such as OpenCV
- **Google Maps Proximity Reminder:** Written in Java for the Android Operating System, used Google Maps Api, and the Model View Controller Pattern.
- **Racing Car Game:** Developed in C for the MSP430 microprocessor.

Skills

Programming Languages: Proficiency in Java, Python, C, Ruby, Haskell, PHP, Prolog, C++, SQL.

Software Engineering Methodologies:

- Development process models: Waterfall, Phased Development, and Agile Methods (Crystal)
- Software Testing: Unit, Integration, System, Automated Testing, DB Testing, Performance Testing
- Software Architecture and Design: Module, Component and Connector, Deployment Views of software architecture.

Mobile Application Development: Android Framework, Activities, Fragments, Intents, Google Maps API, Manifests, UI Development.

Artificial Intelligence: Searching, Decision Theory, Game Theory, Clustering, Classification, Link Analysis, Sentiment Analysis, Anomaly Detection, Optimization, Association Rules.