SOWMYA PONUGOTI

4814 Eldon Green, Baltimore , MD 21227

Home Ph :(443) 543-0598

Email: psowmya1@cs.umbc.edu

Objective

To obtain a position that involves building robust and effective software applications as a Software Engineer

Special Interests

Machine Learning, Data Mining, Multi- Agent Systems, Web Application Development

Work Experience

Teaching Assistant **(Jan 2003 – Present)**

Teach, Mentor, Grade and Code Projects in **C** for a section of 40 undergraduate students

Web and System Administrator **(Jan 2003 – Present)**

Administer Windows machines and maintain the official web site of the JCET department at UMBC

Research Assistant **(Jan 2002-Aug 2002)**

- Integration of agents and the web using Semantic Web concepts
- Analysis of the impact of communication sensitive decision making in Multi-Agent Systems using Teambots

System Administrator **(Sept 2001-Dec 2001)**

Assisted in the administration of Unix/Linux/Solaris machines in the Mechanical Engineering Department

Education

M.S in Computer Science University of Maryland Baltimore County (UMBC)   (Expected) Aug 2003

B.E in Computer Science Osmania University, India   (Jun 2001)

Courses

Graduate: Advanced Software Engineering, Data Warehousing and Mining, Information Retrieval, Artificial Intelligence, Agent Architectures and Multi-Agent Systems, Unix System Administration, Design and Analysis of Algorithms, Advanced Operating Systems, Advanced Computer Architecture

Undergraduate: Operating Systems, Computer Organization, Data Communication, Automata Theory, Computer Graphics, Programming Languages, Analysis and Design of Algorithms, Computer Networks

Computer Skills

Operating Systems:	Unix/Linux/Solaris, Windows 95/98/NT, MS DOS
Programming Languages:	C, C++, Java, Lisp, VC++, Perl, VHDL, COBOL, HTML
WebServers & Database:	Apache, Tomcat, Oracle (PL/SQL)
Packages & Simulators:	WEKA, Casteneda, MLC++, Jess, TeamBots, GameBots, JADE

Projects (More information available at: http://www.cs.umbc.edu/~psowmya1/Projects.html)

Grouping Categorical Values in Decision Trees **(M.S Project)**   **(Sept 2002 – Present)**

A greedy approach for grouping values of categorical attributes is being analysed to build efficient decision trees. This is being implemented in **C** and will be compared to the methods in **C4.5**

Text Retrieval Engine   **(Sept 2002 – Dec 2002)**

Design and development of a text retrieval engine in **Perl** and **Java**. This system indexes a ½ GB collection and uses the vector space model for retrieving the relevant documents. Various differential weighting schemes are explored while assigning weights to terms appearing within the HTML tags and anchor text

X-TALKS Project   **(Jun 2002- Aug 2002)**

Modification of the behaviour of X-TALKS Personal Agent and development of a system that allows an agent to query other agents using **DAML** and **Jess**.This is built on **JADE** platform and is FIPA compliant

Kernel Programming and Linux Intrusion Detection   **(Jun 2002-Jul 2002)**

Modification of the Linux kernel to incorporate two new system calls and installation/configuration of Linux Intrusion Detection Software which protects the system even from the root

Simulation of DLX pipeline   **(Apr 2002-May 2002)**

Design and development of a simulator for simplified DLX pipeline, using **C** and **STL,** with data forwarding and delayed branching. It is optimised using loop unrolling and computes the number of stalls involved

Competitive Bot Development   **(Apr 2002-May 2002)**

Development of a bot using Gamebots, in **Java**, that competes with other bots in a Multi-Agent environment

Web Caching Proxy Server   **(Oct 2001-Dec 2001)**

Design and Development of Client side Proxy Server with caching to reduce page fetch delay. Implementation involved Client-Server Networking concepts of **Java**

Cryptography – Digital Signature Algorithm   **(Sept 2000 – May 2001)**

Implementation of the Digital Signature Algorithm in **C++** for encrypting the data sent from one port to another

References: Available on request