Larry A. Hendrix

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RESEARCH INTERESTS

Algorithms in machine learning and data mining.

EDUCATION

Fall 2006-Present **Univ. of Wisconsin-Madison** **Madison, WI**

PhD in Computer Science expected 2010

- Coursework: CS540 Intro to Artificial Intelligence, CS552 Intro to Computer Architecture, CS576 Intro to Bioinformatics, CS760 Machine Learning, CS776 Advanced Bioinformatics, CS769 Advanced Natural Language Processing
- Experience implementing algorithm involving decision trees, Bayesian Networks, Neural Networks, Markov Models, and Inductive Logic Programming

Fall 2002-2006 **Grambling State University** **Grambling, LA**

B.S. in Computer Science (May 21, 2006)

- Cum. GPA: 3.75 /4.0 Major GPA: 3.51/4.0
- Courses included: software engineering, theory of computing, advanced programming techniques, computer networks, computer architecture, software development, design and analysis of algorithms, operating systems, programming language concepts, database management systems, data structures, discrete mathematics

RESEARCH EXPERIENCE

Summer 2006 **Georgia Institute of Technology** **Atlanta, GA**

Research Internship in Electrical and Computer Engineering

- Assisted in developing a model of the Port of Savannah using a java based rendering engine in order to improve organizational workflow of the port
- Created 3-dimensional representation of objects within the port using Google Sketchup 3D

Summer 2005 **Massachusetts Institute of Technology** **Cambridge, MA**

Research Internship in Computational Biology

- Analyzed high throughput data sets representing coiled-coil interactions within Saccharomyces cerevisiae (budding yeast) using MySQL query language and Perl scripting language

- Identified high confidence coiled-coil interactions to locate patterns within the data sets resulting in a decreased test set from 6 billion potential interactions to 618 high confidence coiled-coil interactions

Summer 2004 Univ. of Wisconsin-Madison Madison, WI

Research Internship in Bioinformatics/ Biostatistics

- Modeled different conformations (3-D molecular structures) of 100 compounds using a molecular modeling software, Sybyl, for the purpose of training the machine learning algorithm
- Estimated an inductive logic program's accuracy when generating logic clauses in Prolog on conformational/structural properties of molecules using 5-fold cross validation
- Analyzed logic clauses developed by the ALEH system that performed at a level of 57.5% accuracy which is does not show statistical significance over random chance

TEACHING EXPERIENCE

Summer 2007 PEOPLE Program Univ. of Wisconsin-Madison

I served as the instructor/internship coordinator for a six week program aimed at teaching high school seniors to program in Java. This provided the students with an introduction to topics such as: software engineering, computer graphics, computer networks, human-computer interaction, and artificial intelligence. My responsibilities included developing the course curriculum and syllabus, giving lectures, and assisting students in the lab with programming assignments. By the end of the program, students were able to write simple programs in java, identify the general principles of object-and evaluate Boolean logic expressions. The students were also provided with information on the potential career paths in computer science.

AWARDS

- NLM CIBM Predoctoral traineeship (Fall 2007- present)
- Advanced Opportunity Fellow (2006-2007)
- Graduate magna cum laude, Grambling State University (2006)
- 3rd place in oral competition at the Phillip Young Symposium (2006)
- NIH-MARC Scholar (2004-2006)
- Golden Key Honor Society Invitee (2005)
- President's List (2003-2006)

TECHNICAL SKILLS

- Proficient in java
- Experience with prolog, c++, perl, matlab, and verilog
- Platforms: Linux/Unix , Solaris, Windows