

Andrew M. Korth

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EDUCATION

- '03-May '07** University of Minnesota, Morris
Senior in computer science bachelor degree program
- 1999-2003** Morris Area High School

SIGNIFICANT EMPLOYMENT

Summer '06 Software Development Intern, Thomson West, Eagan, MN

I developed an automated testing framework for a portion of the Westlaw legal database. Using Java servlets and XSLT, I developed a web interface for adding and running tests on a variety of parts of the system.

2003-2006 Software Developer, USDA, Agricultural Research Service, Morris, MN

In the summer of 2005 to 2006, I completely redesigned WeedCast (a weed emergence decision aid targeted at local farmers and crop consultants) and WheatScout (a herbicide usage decision aid) into a desktop Java application.

In 2004, I added functionality to WeedCast, which was then written in Visual Basic. I was part of a team that implemented a php version of WeedCast.

During the summer of 2003, my time was split between field work and creating an Access Database, which is still in use today.

2004 Teacher Assistant, University of Minnesota, Morris

In the fall semester, I graded problem sets and tutored students in a sophomore level data structures class.

2004 Dynamic Web Page Developer, Total-ed.com, Morris, MN

Total-ed.com was a small internet startup business that ran a web-based e-commerce site. I designed the website to the company's specifications using php and a MySQL database backend.

2003 Web Page Designer, University of Minnesota, Morris

While employed by UMM's Center for Small Towns, I worked with clients to design community-based web pages for local businesses and non-profit organizations. I also trained people at these organizations to maintain their site.

SKILLS

Programming Languages and Tools: Java (and experience with Swing GUIs), JUnit, XML and XSLT, AJAX, J2EE technologies, WebSphere Application Server, IBM RAD/WSAD, Eclipse, PHP, MySQL, Ruby, HTML and CSS, and a fair bit of C++, JavaScript, Java Servlets, Bash Scripting, and more.

Operating Systems: Linux (many distros), Mac OS X, Windows.

Working on mid to large sized projects, alone and in groups

Design of user interfaces and program backends

Experience on a variety of projects in a variety of environments

RESEARCH

For 2006-2007, I am working on evolutionary computation research through a grant from the Undergraduate Research Opportunity Program (a competitive program that supports student initiated research).

From 2004 to 2006, I conducted research in scheduling tasks across parallel processors. I presented my results at the National Conference for Undergraduate Research in April of 2006 and at the Midwest Instructional Computing Symposium in 2005. The latter presentation was awarded second place.

ACTIVITIES

From 2005-2007, I have served as an elected computer science student representative. In the fall of 2006, I was part of a team that won the Digikey programming contest. In April of 2007, my team won the programming contest at the MICS regional conference, and I was awarded best undergraduate paper.

In 2005-2006, I served as the president of the ACM/Computer Science Club and a member of a faculty search committee.

I enjoy karate (2nd kyu), swimming, and several computer-related hobbies, including my database (MySQL) driven web pages and open source Java (and occasionally C++) applications. During high school, I won 15+ awards at science fairs, advancing to the International Science Fair in 2002 with a computer physics simulation and in 2003 with an encryption project.

PUBLICATIONS

"On the impact of geography and local mating in evolutionary computation," Andy Korth, Dr. Nic McPhee (Advisor), Tyler Hutchison, Proceedings of the Midwest Instructional and Computing Conference (MICS), University of North Dakota, April, 2007.

"Parallel Computing using MPI and Task Allocation Algorithms," Andy Korth, Jon Quarfoth, and Dr. Dian Lopez (Advisor), Abstract published in Proceedings, National Conference on Undergraduate Research (NCUR), Ashville, North Carolina, April, 2006.

"Task Allocation Algorithms with Communication Costs Considered," Jon Quarfoth, Andy Korth, Dr. Dian Lopez (Advisor), Proceedings of the Midwest Instructional and Computing Conference (MICS), Eau Claire, WI, April, 2005.

"WEED EMERGENCE: A REVISED WEEDCAST AND ITS USER VERSATILITY," Dr. Frank Forcella, Dr. Dave Archer, Dr. Ed Luschei, Dr. Kurt Spokas, and Andy Korth, Proceedings of the North Central Weed Science Society, December 2005.

MEMBERSHIPS

ACM, International Game Developers Association

REFERENCES

Nic McPhee (Professor and Advisor, UMM), mcphee@umn.edu

Frank Forcella (Scientist, USDA ARS, 2005-06), (320)-589-3411, forcella@morris.ars.usda.gov

Susan Hauger (Owner, total-ed.com), (320)-589-2429, hauger@info-link.net

Elena Machkasova (Professor, UMM), elenam@umn.edu

