

AGUSTIN SCHAPIRA

EDUCATION

- B.S. IN COMPUTER SCIENCE** (Universidad Blas Pascal, Córdoba, Argentina, 1995, Gold Medal)
M.S. IN COMPUTER SCIENCE (University of Massachusetts at Amherst, 2000)

EXPERIENCE AND SKILLS

ARTIFICIAL INTELLIGENCE (KNOWLEDGE DISCOVERY, INFORMATION RETRIEVAL, VISION)

(Java, C++, Lisp)

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| Senior Software Architect for Proximity, a large open-source platform for Knowledge Discovery
Project funded and used by DARPA, NSF, Lawrence-Livermore National Laboratory, NASD, and others
http://kdl.cs.umass.edu/proximity
(Java, MonetDB) | 2002 -
2007 |
| Built a web search engine using collaborative filtering techniques
http://lass.cs.umass.edu/~schapira/thesis/
(PHP, MySQL, Collaborative Information Retrieval) | 1999 |
| Developed a neural-network system for the analysis of Excite search logs
work as Research Assistant at Center for Intelligent Information Retrieval (http://ciir.cs.umass.edu/)
(C++, Mathematica) | 1998 |
| Wrote low-level layers of code to control Pioneer Robots for cognitive science experiments
work as Research Assistant at Experimental Knowledge Systems Lab (http://www-eksl.cs.umass.edu/)
(LISP) | 1997 |
| Developed award-winning computer vision system for the identification of brain cells in microscopy images
(C++) | 1995 |
| Created a neural-network system for the analysis of socioeconomic data for Argentinean railroad system
(C++) | 1994 |
| Developed a decision-trees system for the analysis of trends in consumer behaviors
(LISP) | 1993 |

HIGH-PERFORMANCE DATABASE SYSTEMS

(MonetDB, vertical databases, Oracle, SQL)

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| Designed and implemented low-level APIs to communicate with MonetDB, for Proximity
(Java, MonetDB) | 2006 |
| Fully re-wrote Java implementation of QGraph, a query language for graph databases
(Java, MonetDB, SQL, QGraph) | 2005 |
| Re-implemented Proximity database-engine to use MonetDB, with 100x performance gains
(Java, MonetDB) | 2004 |
| Wrote port to OS X of CWI's revolutionary MonetDB, a vertical database system
http://monetdb.cwi.nl/ and http://kdl.cs.umass.edu/proximity/
(C, OS X) | 2003 |
| Optimized original implementation of QGraph, a query language for graph databases, with 10x gains
(Java, MySQL, Oracle, Postgres, Informix, QGraph) | 2002 |

SOFTWARE ENGINEERING PRACTICES, STUDENT MENTORING, PROJECT LEADERSHIP

(XP, Open Source development)

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| Leader of new Proximity developments, including knowledge discovery tools, visualization kits, APIs
http://kdl.cs.umass.edu/proximity | 2007 |
| Advised doctoral students on issues of software design, architecture, and programming in general
http://kdl.cs.umass.edu/ | 2007 |
| Served as technical contact for collaborations with third-parties interested in Proximity
including National Association Of Securities Dealers and Comcast Interactive Media Labs
http://kdl.cs.umass.edu/proximity , http://www.nasd.com , http://labs.comcast.net | 2007 |
| Coordinated development of platforms for online sharing of knowledge in research lab
(Wikis, blog, collaborative paper repositories written in Ruby on Rails) | 2006 |
| Incorporated (with others) eXtreme Programming techniques to the development of Proximity
(XP, test-driven development) | 2005 |
| Coordinated (with others) the release of Proximity as open-source software. 1,500 users to date
(Open Source, Ant, CVS/Subversion, technical support) | 2004 |

WEB DEVELOPMENT

(Ruby on Rails, Ajax, PHP, Flash, Actionscript, Tcl, MySQL)

Created the 2008 Election Issues Poll application on Facebook http://apps.facebook.com/electionpoll/ (PHP, MySQL, Facebook API)	2007
Built back-end and user interface for McGraw-Hill's Presentation Center (for Hunt&Gather) Website requires an account. See http://huntandgather.com/ for screenshots (Ruby on Rails, Ajax, MySQL)	2006
Developed set of highly-interactive educational web-apps for iLearnExpress (Grades 1-5, Math) http://www.ilearnexpress.com/ (Flash, Actionscript)	2005
Wrote an early database-backed port of UMass's system for distance learning, Ripples http://manic.cs.umass.edu/ and <i>Proc. 2001 Symposium On Applications and the Internet</i> (PHP, MySQL, Java, RealAudio and RealVideo integration)	2001
Helped build Channelfit, a health portal with customized diets and meal plans http://www.ilearnexpress.com/ (Tcl, Oracle)	2001
Co-developed (with others) a web application for online tracking of psychiatric patients (Tcl, Oracle)	2001
Helped build an innovative screen-saver to display images from customized RSS-like feeds (Tcl, Oracle)	2000
Built the online polling system, The Race for the Rainforest game, and a collaborative calendar of events http://www.care2.com (PHP, MySQL)	1999
Developed and released a widely-used open-source code for online, collaborative note keeping French version at http://psycho-socio.lelinux.org/lecture/ (PHP, MySQL)	1998

HONORS AND AWARDS

ISENBERG AWARD	School of Management, UMASS	1999
BEST STUDENT GOLD MEDAL	Universidad Blas Pascal, Argentina	1996
BEST PROJECT AWARD	XXIII Argentine Conference on Informatics	1994
MERIT STUDENT SCHOLARSHIP	Universidad Blas Pascal, Argentina	1993

References available upon request

See also <http://www.cs.umass.edu/~schapira>