

# Michael R. Head, Software Researcher

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## Objective

- To obtain full time employment in January 2009 with a computer software company or research laboratory in the New York City area working in a team-oriented environment on large-scale distributed applications and toolkits.

## Skills

- Java programming: network programming, parsing techniques (both *ad hoc* and with JavaCC and SableCC), Servlets/JSP, SWT and Eclipse plugin development
- Other languages/libraries/tools: C (with GTK2/Glade), C++ (on Linux), Python (with PyGTK), and GNU autotools

## Experience

**Ph.D. Candidate/Research Assistant** : *Binghamton University*, Binghamton, NY : Fall 2004 - Present

- Research group member analyzing and developing the Grid Computing service stack; projects in Java, C, C++, and Python involving SOAP, XML, and GridFTP
- Reviewed papers for several scientific conferences and journals
- Founded and lead the Binghamton University Computer Science Graduate Student Seminar Series

**Independent Contractor**: *Charles River Analytics*, Cambridge, MA : September 2007 - May 2008

- Developed a complex event processor for intrusion detection systems; responsible for developer tools and servlet/JSP-based AJAX web interface

**Technical Writer** : *Studio B Productions*, Great Neck, NY : February 2007 - May 2007

- Authored a tutorial on the Alchemi.NET Grid Computing platform, published on IBM's DeveloperWorks developer portal

**Linux Specialist**: *Custom Systems Integration*, Endicott, NY : January 2006 - March 2006

- Designed and developed an internationalized (gettext-enabled) C-based GTK application for the testing of 12 different digital, analog, GPIB, and CAN PCI I/O boards under Red Hat Enterprise Linux 3; developed and documented the installation and test procedure of the operating system, hardware and drivers

**Research Assistant**: *Brandeis University*, Waltham, MA : Fall 2001 - Summer 2004

- Research group member studying the design of effective groupware solutions; developed a shared editing tool for HTML and JScheme for experiments involving distributed pair programming

**Lead Developer, Administrator**: *Zclipse.org* : Summer 2002 - 2004

- Opensource Eclipse plugin projects: Insectivore, a lightweight bug and issue tracking plugin; JScheme Plugin for Eclipse, development tools for the JScheme dialect of Scheme

**Advisory I/T Specialist**: *IBM Global Services*, Charlotte, NC : Summer 1999 - Fall 2001

- Traveled to several client sites, developed Java solutions for clients in the banking and finance industry

## Education

Fall 2004 - Present : **Binghamton University**, Binghamton, NY

- Expected graduation: December 2008
- *Ph.D., Computer Science*; specializing in Grid Computing; 3.966/4.0 GPA

Fall 2001 - Summer 2004 : **Brandeis University**, Waltham, MA

- *M.A., Computer Science*; specializing in Computer Supported Cooperative Work; 3.890/4.0 GPA

Fall 1995 - Summer 1999 : **Binghamton University**, Binghamton, NY

- *B.S., Computer Science & B.S., Mathematics* ; 3.461/4.0 overall GPA

## Selected Publications

- Michael R. Head, Madhusudhan Govindaraju, Robert van Engelen, Wei Zhang, "Benchmarking XML Processors for Applications in Grid Web Services" in *SC|06 (Supercomputing): International Conference for High Performance Computing, Networking, and Storage*, Tampa, FL, November 2006.
- Michael R. Head, Madhusudhan Govindaraju, Aleksander Slominski, Pu Liu, Nayef Abu-Ghazaleh, Robert van Engelen, Kenneth Chiu, Michael J. Lewis, "A Benchmark Suite for SOAP-based Communication in Grid Web Services," in *SC|05 (Supercomputing): International Conference for High Performance Computing, Networking, and Storage*, Seattle WA, November 2005.
- Onur Demir, Michael R. Head, Kanad Ghose, and Madhusudhan Govindaraju, "Protecting Grid Data Transfer Services with Active Network Interfaces," *Grid 2005 - 6th IEEE/ACM International Workshop on Grid Computing*, Seattle WA, November 2005.