Benjamin J. Wright

CONTACT
INFORMATION

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RESEARCH
INTERESTS

Logical Foundations in Multi-Agent Systems	Computational Logic	Commitments
Reasoning about Knowledge	Knowledge Representation	Action Languages
Computer Science Education	Automated Reasoning	

EDUCATION

New Mexico State University, Las Cruces, New Mexico USA

Ph.D. Candidate, Computer Science, August 2009 (expected graduation date: May 2014)

- Advisor: Enrico Pontelli

M.S. Student, Computer Science, August 2007

- Thesis: "Functional Programming on Graphics Processors with MapReduce"

University of Evansville, Evansville, Indiana USA

B.S., Computer Science, Minor in Internet Technology May 2007

HONORS AND
AWARDS

National Science Foundation East Asia Pacific: Summer Institute (EAPSI) Fellowship, **Summer 2012** OISE-1209446

ACADEMIC
EXPERIENCE

New Mexico State University, Las Cruces, New Mexico USA

Graduate Student   **August 2007 - present**
Includes current Ph.D. research, Ph.D. and Masters level coursework and research projects.
- Current and Future Research Goals: Commitments have been researched in Multi-Agent Systems for a while. However, the addition of *epistemic reasoning* to commitments has not been widely considered yet. It is our desire to pursue this endeavor through the use of action languages, answer set programming, and JASON.
- Past Research:
  - Knowledge Representation for Phyloinformatics
  - Reactive based Agents in JASON using planners and Action Languages
  - Implementing MapReduce in NVIDIA's CUDA
- Relevant Courses: Constraint Logic Programming, Artificial Intelligence II, Advanced Algorithms, Parallel Programming, Multi-Agent System Programming, Programming Languages II

Department of Education GAANN Fellow   **February 2013 - Present**
This fellowship provided funding and support for research and professional development - particularly in teaching.

Teaching Assistant   **August 2007 - May 2009, August 2012 - February 2013**
Duties included office hours, helping weekly computer lab exercises, grading lab and homework assignment, and proctoring exams.
Note: CS157 was an online course solely in my charge.
- CS 473 : Computer Architecture
- CS 273 : Machine Programming and Organization
- CS 272 : Introduction to Data Structures
- CS 278 : Discrete mathematics for Computer Science
- CS 157 : Topics in Software Programming and Applications: Learning to Program by Building Android Apps using AppInventor

NSF EAPSI Fellow / JSPS Summer Program Fellow **June 2012 - August 2012**
This fellowship provided funding for international research at Wakayama University in Wakayama, Japan. The fellowship was dual supported by the NSF and the Japan Society for the Promotion of Science (JSPS).

NSF GK-12 DISSECT Fellow **August 2010 - May 2012**
This fellowship paired me with a Middle School teacher where my duties included:
- implement additional inquiry-based learning modules,
- find ways to incorporate Computational Thinking into basic STEM classes,
- observing how students learn and make connections, and
- improve understanding of STEM pedagogy.

Preparing Future Faculty Assistantship **August 2007-May 2008**
This assistantship involved attending many workshops targeted towards graduate students wanting to become faculty later on in there career. In addition, I was paired with a course where I was introduced to some of the backend concepts of the course requirements such as creating assignments and updating lecture notes.

ACADEMIC ACTIVITIES

New Mexico State University, Las Cruces, New Mexico USA

President of the Computer Science Graduate Student Organization **August 2009 - August 2011**
Secretary of the Computer Science Graduate Student Organization **August 2011 - August 2012**
Vice-President of the Computer Science Graduate Student Organization **August 2012 - Present**
Duties included:
- acting as liason between the student body and faculty,
- organizing and leading student activities, and
- maintaining a repository of previous Qualifier Exams for the department

PUBLICATIONS

Ben Wright, Enrico Pontelli, and Tran Cao Son. Implementing Reversible Processes in Multi-agent Action Languages Using Answer Set Planning, 163-180. In Computational Logic in Multi-agent Systems XIII (CLIMA 2012).

Ben Wright. (2012) Together, Is Anything Possible? A Look at Collective Commitments for Agents, 476-480. In Technical Communications of the 28th International Conference on Logic Programming (ICLP'12).

Brandon Chisham, Ben Wright, Trung Le et al. (2011) CDAO-Store: Ontology-driven Data Integration for Phylogenetic Analysis, 98. In BMC Bioinformatics 12 (1).

Brandon Chisham, Enrico Pontelli, Tran Cao Son et al. (2011) CDAOStore : A Phylogenetic Repository Using Logic Programming and Web Services, 209-219. In Technical Communications of the 27th International Conference on Logic Programming (ICLP'11).

Chisham, Brandon, Le, Trung, Pontelli, Enrico, Son, Tran, and Wright, Ben. CDAO-Store: A New Vision in Data Integration. Available from Nature Precedings <http://dx.doi.org/10.1038/npre.2010.4586.1> (2010)

PROFESSIONAL ACTIVITIES

Member of New Mexico State University's Teaching Academy **2012-2013**
Member of Text and Academic Authors Association **2013-Present**
External Reviewer for IEEE Conference on Development and Learning and Epigenetic Robotics (ICDL-EpiRob), 2012

PROFESSIONAL EXPERIENCE

Center for Top-Down Proteomics, University of Illinois at Urbana-Champagne, Urbana, Illinois USA

Staff Programmer **May 2009 - August 2009**

Worked on implementing the next version of their in-house system *retriever*. This included modularizing, parallelizing, and encapsulating previous versions of the software. *Retriever* is part of the engine that works on the *ProSight* software system which is the in-house software for the Kelleher Research Group and Thermo-Fisher Scientific Corporation. This software is vital to the research group on a daily basis.