

Delroy Cameron
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EDUCATION

- Wright State University, Kno.e.sis Center (Jan. 2008 - Present)
PhD Candidate, Computer Science
- The University of Georgia (Aug. 2005 - Dec. 2007)
Master of Science in Computer Science
- Savannah State University (Aug. 2001 - May 2005)
Bachelor of Science in Computer Science Technology

RESEARCH INTERESTS

My research focuses on Text Mining and Literature-Based Discovery (LBD) using Health Care and Life Sciences (HCLS) data, by applying Semantic Web Technology and Natural Language techniques. Key research issues include entity extraction and annotation, relationship identification and triple extraction from both structured and unstructured text. Ultimately, the goal is to semantically integrate textual data with background knowledge to improve biomedical and healthcare research. Consequently, my work also leverages Social Media to discover spatial, temporal and thematic patterns and trends.

PROJECTS

- *PREDOSE: PREscription Drug abuse Online-Surveillance and Epidemiology project (2011.7 - present)*
This is an NIH-funded project whose goal is to extract and analyze assertions obtained from Social Media (i.e., tweets, web forum posts) to determine drug abuse trends, attitudes and behaviors unknown to qualitative researchers in the field.
- *Obvio: Semantic Web in Literature-Based Discovery (2010.6 - present)*
The goal of this work is semantically integrate scientific literature and background knowledge in order to discover knowledge using assertions extracted from structured biomedical text together with assertions from structured knowledge sources. This is ongoing work resulting from my 2010 Summer Internship at the National Library of Medicine (NLM).
- *Scooner: Semantic Browser (2009.1 - 2010.6)*
This project has evolved into a discovery support system aimed towards knowledge discovery through user-driven text exploration. Scooner provides features such as entity annotation, semantic trailblazing, fact aggregation and collaborative information sharing.

PROFESSIONAL ACTIVITIES

Research Internships

- IBM Research (**Summer 2012**)
San Jose CA
- National Library of Medicine (**Summer 2010**)
Bethesda MD

Research Grants (significant participation)

1. NIH-R21 (400K, 2yrs, 2011.7 - 2013.7)
 - A Study of Social Web Data on Buprenorphine Abuse Using Semantic Web Technology
 - Awarded to Kno.e.sis and CITAR, WSU
2. WSU-DCH (35K, 9mths, 2011.1 - 2011.9)
 - A Study of Social Web Data on Oxycontin Abuse Using Semantic Web Technology
 - Awarded to Kno.e.sis and CITAR, WSU (preliminary work leading to NIH-R21 submission)

External Reviewer

- IEEE Transactions on Services Computing (TSC 2010)
- IEEE Internet Computing Magazine (2010)
- Journal of Distributed and Parallel Databases (DAPD 2010)
- IEEE Transactions on Services Computing (TSC 2009)
- Semantic Web Engineering in the Knowledge Society (2007)

Program Co-Chair/Organizing Committee

- The First International Workshop on the role of Semantic Web in Literature-Based Discovery, SWLBD 2012 (<http://knoesis.org/swlbd2012/>)

SKILLS

- Programming Languages: Java, C++, Scheme, C#, C
- Operating Systems: Mac OS, Linux (Fedora/Ubuntu), Solaris, MS Windows
- Web Programming: HTML, DHTML, CSS, JavaScript, ExtJS, JSP, Java Servlet, PHP, ASP
- Semantic Web/Web Services: OWL, RDF/XML, SOAP, WSDL, REST, Axis2
- Application Servers: Apache Tomcat, Apache HTTP Server
- Database Systems: Virtuoso, Oracle, MySQL, Microsoft SQL Server
- Distributed Computing: Hadoop, Pig Scripting

PUBLICATIONS

2012

1. **D. Cameron**, O. Bodenreider, H. Yalamanchili, T. Danh, S. Vallabhaneni, K. Thirunarayan, A.P. Sheth, T.C. Rindfleisch, A Graph-Based Decomposition of Swanson's Hypothesis using Semantic Predications. *Journal of Biomedical Informatics*. (under review)
2. R. Daniulaityte, R. Carlson, R. Falck, **D. Cameron**, L. Chen, A. P. Sheth, Drug User Opinions About Extra-Medical Use of Loperamide: Application of Sentiment Analysis to Web Forum Data. 5th World Congress on Social Media, Mobile Apps, and Internet/Web 2.0 in Medicine and Public Health, Medicine 2.0, Boston MA USA, September 15-16, 2012.
3. R. Daniulaityte, R. Carlson, R. Falck, **D. Cameron**, S. Udayanga, L. Chen, A. P. Sheth, A Web-Based Study of Self-Treatment of Opioid Withdrawal Symptoms with Loperamide. The College on Problems of Drug Dependence CPDD 2012, Palm Springs, CA USA, June 9-14, 2012.

2011

1. **D. Cameron**, R. Kavuluru, O. Bodenreider, P. N. Mendes, A. P. Sheth, K. Thirunarayan, Semantic Predications for Complex Information Needs in Biomedical Literature, 5th International Conference on Bioinformatics and Biomedicine, BIBM 2011, Atlanta GA, November 12-15, 2011 (acceptance rate=19.4%)

2010

1. **D. Cameron**, B. Aleman-Meza, S. L. Decker, I. B. Arpinar, A. P. Sheth, A Taxonomy-based Model for Expertise Extrapolation. International Conference on Semantic Computing, ICSC 2010, Pittsburgh PA, September 22-24, 2010 (acceptance rate=32%)
2. C. Thomas, W. Wang, P. Mehra, **D. Cameron**, P. N. Mendes, A. P. Sheth, What Goes Around Comes Around Improving Linked Open Data through On-Demand Model Creation, Web Science Conference, WebSci 2010, (Co-located with 19th International World Wide Web Conference - WWW 2010) Raleigh NC, April 26-27, 2010
3. P. N. Mendes, P. Kapanipathi, **D. Cameron**, A. P. Sheth, Dynamic Associative Relationships on the Linked Open Data Web, Web Science Conference, WebSci10, (Co-located with 19th International World Wide Web Conference - WWW 2010) Raleigh NC, April 26-27, 2010
4. **D. Cameron**, P. N. Mendes, A. P. Sheth, V. Chan, Semantics-Empowered Text Exploration for Knowledge Discovery, 48th ACM Southeast Conference, ACMSE 2010, Oxford Mississippi, April 15-17, 2010

2008

1. B. Aleman-Meza, S. L. Decker, **D. Cameron**, I. B. Arpinar, Association Analytics for Network Connectivity in a Bibliographic and Expertise Dataset, Semantic Web Engineering in the Knowledge Society, 2008

2007

1. D. Luper, **D. Cameron**, J. A. Miller, H. R. Arabnia, Spatial and Temporal Target Association through Semantic Analysis and GPS Data Mining, 5th International Conference on Information and Knowledge Engineering, IKE 2007, Las Vegas Nevada, June 25-28, 2007
2. **D. Cameron**, B. Aleman-Meza, I. B. Arpinar, Collecting Expertise of Researchers for Finding Relevant Experts in a Peer-Review Setting, 1st International ExpertFinder Workshop EFW 2007, (Co-located with 7th Knowledge Web General Assembly) Berlin Germany, January 16, 2007

2006

1. M. Lewis, **D. Cameron**, S. Xie, I. B. Arpinar, ES3N: A Semantic Approach to Data Management in Sensor Networks, Semantic Sensor Networks Workshop SSN 2006, (Co-located with 5th International Semantic Web Conference ISWC 2006), Athens GA, November 5-9, 2006

REFERENCES

1. Amit P. Sheth (Advisor)
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