

# Nishita Jaykumar

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CONTACT INFORMATION	3640 Colonel Glenn Highway, Dayton, OH 45435 Ohio Center of Excellence in Knowledge-enabled Computing Kno.e.sis Center, Wright State University	office: +1 937-775-5217 Cell: +1 937-760-8554 e-mail: nishita@knoesis.org
OBJECTIVE	Masters student in Computer Science with interests in the use of Semantic Web Technologies for Information Extraction and Knowledge Discovery.	
EDUCATION	<b>Wright State University</b> , Dayton, Ohio <i>Master of Science</i> , GPA: 3.80 <b>January 2013 – present</b>	
	<b>Visvesvaraya Technological University</b> , Bangalore, India <i>Bachelor of Engineering</i> , GPA: 3.67 <b>September 2008 – June 2012</b> <ul style="list-style-type: none"><li>• Member of Distinction list</li></ul>	
WORK EXPERIENCE	<b>Software Engineer Intern, ezDI: Healthcare Data Intelligence</b> (Sept 2015 - December 2015) Developing a robust CDI solution using NLP and machine learning to identify clinical indicators commonly associated with diagnoses classified by CMS as complicating conditions (CCs) or major complicating conditions (MCCs) <b>Research Intern, Siemens PLM Software</b> (May 2015 - August 2015) Worked on enhancing a Document Management tool called Teamcenter. Developed Apps for Office by exploring the Office 365 API. Implementing apps to interact with Active workspace and Microsoft Office applications using JavaScript, C# and Microsoft Azure cloud platform. <b>Research Intern, National Institutes of Health</b> (June 2014 - August 2014) Team member of the Cognitive Science branch, National Library of Medicine. Leveraged Information Retrieval techniques to understand and analyze Automatic Summarization methodologies on PubMed articles for determining the quality of the summaries using Java, UMLS, MeSH, SemMedDB, SemRep, MySQL <b>Graduate Research Assistant, Kno.e.sis, Wright State University</b> (Jan 2013 - to Present) Team member of Obvio, PREDOSE, Material Science projects	
PROJECTS	<b>KnowledgeWiki: A semantic platform for creating, integrating and curating knowledge graphs</b> (Jan 2015 - present): The goal of KnowledgeWiki is to provide a crowd-sourced platform for domain experts to collaborate and create a common vocabulary to describe the Material Science domain. In collaboration with AFRL/RIS, we aim to provide easy access to highly distributed and heterogeneous materials data for researchers to share and exchange for various purposes including new materials discovery and deployment. My work: Used the Semantic Mediawiki API to develop a crowd sourced platform. Created the This platform bears a wiki like User Interface.  <b>OBVIO: Semantic Web in Literature-Based Discovery</b> (Jan 2014 - December 2014): The goal of Obvio is to uncover hidden connections among concepts in biomedical texts, to facilitate hypothesis generation from publicly available scientific literature. My work: To compute MeSH Semantic Similarity between MeSH descriptors and also to develop a web application using Adobe Flex.	

NIH funded PREDOSE is the acronym for PREscription Drug abuse Online Surveillance and Epidemiology. To determine user knowledge, attitudes and behavior related to the non-medical use of pharmaceutical opioids (namely buprenorphine) as discussed on Web-based forums.

My work: To search for specific patterns in unstructured text and determine semantic relationships for the purpose of discovering interesting and unknown trends of drug abuse using IBM BigInsights and Text analyst (AQL) technology.

#### **Information Extraction in Biomaterial and Material Science Texts** (Aug 2013 - Jan 2015):

This was a project in collaboration with Air Force Research Laboratories (AFRL/RX). For this project we applied knowledge and technology in informatics to the material domains. We developed a data exchange system that will allow researchers to index, search, and compare data in material science.

My work: Performing Text analytics on Biomaterial texts and identify specific patterns of interest and the relations between them. Also, assisted in developing a database interactive tool for allowing domain experts to annotate domain-specific literature.

#### PUBLICATIONS

Cameron, D., Sheth, A.P., **Jaykumar, N.**, Thirunarayan, K., Anand, G. and Smith, G.A., 2014. A hybrid approach to finding relevant social media content for complex domain specific information needs. *Web Semantics: Science, Services and Agents on the World Wide Web*, 29, pp.39-52.

**N. Jaykumar**, P. Yallamelli, V. Nguyen, S. Lalithsena, K. Thirunarayan, A. Sheth, C. Paul KnowledgeWiki: An OpenSource Tool for Creating Community Curated Vocabulary, with a Use Case in Materials Science (Accepted at the World Wide Web Conference 2016)

#### COURSEWORK

- Advanced Database Systems
- Web 3.0 - Semantic Web
- Algorithm Design and Analysis
- Cloud computing
- Advanced Semantic Web
- Web Information Systems
- Information Retrieval
- Advanced Programming languages

#### SKILLS

- **Programming Languages** : Java (Experienced), Perl (Intermediate), Python(Beginner), R (Intermediate), Shell scripting (Experienced), PHP (Intermediate)
- **Frontend Web Development**: Javascript (Intermediate), HTML, GWT ,CSS,ExtJs, J2EE framework.
- **Backend Development** : MySQL Database(Experienced), MongoDB(Beginner), Apache Tomcat Web Server, SPARQL, Virtuoso, Apache Lucene
- **Semantic Web Technologies** : SPARQL(Intermediate), RDF and OWL (Beginner), UMLS and MeSH(Experienced)
- **Cloud Computing** : Apache Hadoop (Beginner) , Pig Scripting (Intermediate) , OpenStack (Intermediate)
- **Toolkits and Enterprise and other Software Technologies** : Weka (Intermediate), IBM Biginsights, UIMA, AQL, Semantic MediaWiki (Experienced), L<sup>A</sup>T<sub>E</sub>X
- **Operating Systems**: Linux (Experienced), Windows, Mac.
- **Version Control** : SVN(Experienced), GitHub(Beginner)

#### REFEREES

##### **Dr. Amit Sheth**

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