

ANDREA WESTERINEN

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SUMMARY OF QUALIFICATIONS

- Ontologist, systems architect, principal software engineer and team leader, with over 35 years of experience
- Extensive software and model development, project management and systems integration experience
- Held the positions of Distinguished Engineer at CA Technologies, Principal Research Engineer at Two Six Labs, Senior Technical Expert at SAIC, Principal Architect at Microsoft, Technical Director for the Storage Networking Industry Association (SNIA) and Vice President of Technology for the Distributed Management Task Force (DMTF)
- B.S. in Physics and Mathematics from Marquette University, and an M.S. in Computer Science from Nova Southeastern University

EXPERIENCE

Principal Research Engineer Two Six Labs, Arlington, VA

12/17—Present

- Ontologist and principal engineer responsible for data validation, semantic alignment, inference/reasoning and infrastructure adaptation (for new areas of work) in DARPA's [Causal Exploration program](#)
- Data extracted from structured/unstructured sources, coupled with online, "open" data, and abstracted to determine correlations; Ontologies designed to address event and entity recognition, as well as coreference and correlation, and to consolidate results and assure consistency across 6 different performance teams
- Authored new research proposals in response to IARPA/DARPA RFIs/BAAs

Chief Architect Nine Points Solutions, LLC. Potomac, MD

1/14—12/17

- Chief Architect and Senior Java Developer responsible for all consulting and open-source projects; Managed projects and end-customer interfaces
- Open-source work focused on improving domain experts' feedback on semantic and knowledge models (see <https://github.com/NinePts/OntoGraph> and <http://organizingknowledge.blogspot.com>)
- Continued development (and simplification) of the digital policy management system for access control discussed in the SAIC/Leidos experience below
- Designed and documented a set of ontologies for network management for the DOD CIO (presented details to shareholders and at the AFCEA Network Management Exchanges in 2013/2014 and MILCOM 2014)

Senior Technical Expert SAIC/Leidos, Columbia, MD

10/11—12/13

- Development lead and architect of a multi-tier infrastructure to capture, test and track the lifecycle of access control policies (government customer); Responsible for end-customer interface and for the design of all ontologies, business-tier and query logic
- Architected the system from its creation, through a prototype implementation, to operational status
- Panel speaker at RSA 2012 Conference session and presented an ontology overview at the October 2012 STIDS (Semantic Technologies for Intelligence, Defense and Security) Conference

Distinguished Engineer CA Technologies, Bellevue, WA

6/09—10/11

- Lead architect and implementer of the Unified Service Model (USM), a mid-level ontology for IT and security management (released in CA's Spectrum management software)
- Founded/managed a cross-BU team defining USM, as well as managing its usage across products & services

- Represented CA in standardization efforts within the Distributed Management Task Force (DMTF), OASIS, Open Management Group (OMG) and W3C
- Created technical papers/internal guidelines for CA development, and provided internal thought-leadership and consultation related to XML technologies, model/ontology development, and semantic web technologies
- Contributed to NIST's work on privilege management and to the NSA's Digital Policy Management (DPM) technical exchange (chaired the DPM Architecture sub-team, responsible for interface definitions of the infrastructure, and for defining a policy ontology and its specialization in areas such as access control and configuration management)

Principal Software Architect
Microsoft Corporation., Redmond, WA

2/06 – 3/09

- Software architect and development manager of the Policy-Based Business (PBB) project, an incubation project to capture, analyze and encode business vocabularies, policies and processes
- Defined the incubation's preliminary architecture, identified internal and external beta customers (including NSA, NATO, banking and other commercial customers) and acquired Unisys' Rules Modeler personnel and IP (handled the transfer of personnel, and the analysis and transfer of the software assets)
- Responsibilities included architecture definition and documentation, personnel management, code and test development, internal and external customer interface, strategic planning and program management support

Senior Architect and Manager
Cisco Systems, San Jose, CA

5/00 – 2/06

- Managed team with responsibilities for a Cisco-wide, object-oriented device/network model for inventory, network interfaces, users, roles, policy, security and protocol-specific configurations
- Designed "wizard" tool for model consultation & design assistance and code/database transformations
- Frequent interface with customers, partners, sales personnel, press, analysts and standards organizations (including DMTF, IETF, IEEE, Open Group, SNIA, GGF, OASIS, CompTIA, OMG and TM Forum); Held the role of Vice President of Technology of the DMTF, October 2001-January 2004

Program Manager, Software Architect, Lead Software Engineer and Systems Analyst
Microsoft, Intel, NCR and IBM Corporations, Johnson Controls, Medical College of Wisconsin

5/79 – 5/00

EDUCATION

- Master of Science, Computer Science, Nova Southeastern University (Ft. Lauderdale, FL), December 1993
- Bachelor of Science, Physics and Mathematics, Marquette University (Milwaukee, WI), May 1979

PATENTS AND PUBLICATIONS

- 8 patents
- Recent publications:
 - Ontology Summit Communique 2018: Contexts in context, Journal of Applied Ontology, Vol. 13, Issue 3
 - Ontology Development by Domain Experts (Without Using the "O" Word), Journal of Applied Ontology, Vol. 12, Issue 3-4
 - Integrating GoodRelations in a Domain-Specific Ontology, Journal of Applied Ontology, Vol. 12, Issue 3-4
 - Ontology Summit 2016 Communique: Ontologies within semantic interoperability ecosystems, Journal of Applied Ontology, Vol. 12, Issue 2
 - Semantic Web and Big Data Meet Applied Ontology, Journal of Applied Ontology, Vol. 9, Issue 2
 - Co-author of IETF RFCs including 3060 (Policy Core Information Model), 3198 (Policy Terminology) and 3460 (Policy Core Information Model Extensions)
 - Author of a book, white papers and tutorials on systems and network management and the Common Information Model (CIM), available from the DMTF, OASIS, vendor sites and journals