SZYMON KLARMAN

Curriculum Vitae

Personal details

Born:	September 18, 1981 (Poland)
Homepage:	http://klarman.me
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Networks:	LinkedIn, Google Scholar, Medium, Twitter, GitHub, SlideShare

Profile

An R&D specialist in **knowledge engineering** with particular interest in semantic and linked data technologies:

- ✓ 10+ years of **R&D experience** in academia and industry
- ✓ Deep interest in **knowledge technologies**
- ✓ Strong **analytical**, **communication** and **organizational** skills
- ✓ Experience in individual and team-based **project work**
- ✓ Enthusiasm for **learning** and exploring new problems

Expertise: knowledge engineering, knowledge representation, automated reasoning, semantics, ontologies, linked open data, graph data, algorithm design, data modelling, computational & probabilistic logics, natural language processing, statistical relational learning, prototyping

Education

2008 – 2013 Amsterdam Netherlands	**Ph.D. Artificial Intelligence** VU University Amsterdam Department of Computer Science
2006 – 2008 Amsterdam Netherlands	**M.Sc. Logic** University of Amsterdam Institute for Logic, Language & Computation
2000 – 2005 Lodz Poland	**M.A. Philosophy** University of Lodz Institute of Philosophy

Experience

June **2018** – now
Warsaw
Poland

Founder & knowledge architect
Epistemik

- consulting and delivering bespoke knowledge and data engineering solutions (data models, ontologies, inference algorithms, software prototypes, etc.)
- advocating linked/graph data and semantic techniques for knowledge applications

May **2017** – Jan **2018**
London
United Kingdom

Knowledge architect
Semantic Integration

- devising data solutions as an onsite consultant at PhotoBox – microservice architecture for managing product data (Java, DynamoDB, Stardog, ElasticSearch, GraphQL)
- initiating and leading the development of the open-source project HyperGraphQL: a GraphQL interface for querying linked data (GraphQL, RDF, JSON-LD)
- consulting on and delivering R&D contributions towards other PoCs and prototypes (MarkLogic, GATE NLP, WEKA machine learning)

Oct **2017** – Jan **2018**
CA, United States
(remote)

Knowledge representation consultant
Granthika

- advising on knowledge representation and reasoning solutions
- transferring concepts from my Ph.D. work to the early product prototype
- ontology engineering and prototyping towards the PoC (Java, OWL/RDF(S))

Oct **2016** – Apr **2017**
London
United Kingdom

R&D engineer
Grakn Labs

- R&D work by the design and development of GRAKN – a novel knowledge graph platform; involved primarily in defining and formally describing the underlying graph-based knowledge representation and reasoning model
- gathering requirements, knowledge engineering and writing data transformation scripts in the context of PoC applications (Java, Jena, OWL API)
- developing and conducting comparative benchmark tests for query and reasoning performance (Java, Jena, Prolog, Neo4j)

Feb **2015** – Oct **2016**
London
United Kingdom

Research fellow
Brunel University London
Department of Computer Science

- research work by the DARPA's Big Mechanism programme (goal: *development of novel AI technology for extracting, assembling and explaining large mechanistic models described in the cancer biology literature to facilitate future scientific discovery*)
- responsible for developing the knowledge assembly system (based on the application

of semantic and probabilistic/statistical inference tools/techniques), and maintaining the knowledge graph for the project consortium (SWI-Prolog, ProbLog, Virtuoso)

- utilizing open data & vocabularies from: UniProt, Chebi, HGNC, Pathway Commons, Gene Ontology, BioPax, PubMed, SJR, Prov-O, IAO, Dublin Core, VoID
- other independent research work (main theme: *linked data mining*)
- collaborations: University of Manchester, University of Chicago

Jul – Oct 2015
London
United Kingdom

Ontology consultant
Data to Value

- ontology/taxonomy development for the financial industry domain
- knowledge graph management and data integration (unstructured, structured, linked open data) with the PoolParty semantic suite (SKOS, RDF, NLP)
- utilizing open data & vocabularies from: DBpedia, OpenCorporates, telegraphis.net, STW thesaurus, FIBO
- collaboration: Semantic Web Company

Feb 2013 – Jan 2015
Pretoria
South Africa

Postdoctoral researcher
CSIR Meraka Institute & University of KwaZulu-Natal
Centre for Artificial Intelligence Research

- independent research work (main themes: *ontology-based access to temporal data, abductive reasoning*)
- participation in the early phases of the MomConnect project (goal: *implementation of a mobile platform for supporting pregnant women in rural Africa*)
- collaborations: University of Edinburgh, Jembi Health Systems

Nov 2008 – Oct 2012
Amsterdam
Netherlands

Ph.D. research assistant
VU University Amsterdam
Knowledge Representation & Reasoning Group

- research work towards the doctoral degree (main theme: *formal mechanisms for managing contexts in Description Logic ontologies*)
- teaching responsibilities
- collaborations: University of Bremen, FBK Trento, Hewlett Packard Labs Bristol

Jul 2007 – Mar 2008
Amsterdam
Netherlands

Research assistant
University of Amsterdam
Leibniz Center for Law

- research work by the ESTRELLA project (goal: *development of the Legal Knowledge Interchange Format*)
- knowledge and ontology engineering in the legal domain
- technical communication with the industrial partners (knowledgeTools, Rulewise BV)

Dec 2005 –Jul 2006
Dublin
Ireland

Data entry operator
Millward Brown

- entering data from marketing research surveys into databases
- low level database administration and data curation

Awards & honors

2011 — **Best student paper**
The award for the paper "Two-Dimensional Description Logics of Context" (with V. Gutierrez-Basulto) at *The 24th International Workshop on Description Logics*.

2008 — **Cum laude**
A distinction for the overall results in the M.Sc. Logic program.

2006 – 2007 — **Huygens Scholarship Program**
A scholarship for studying in the Netherlands awarded by the Netherlands Organization for International Cooperation in Higher Education.

2005 — **Thesis distinction**
A distinction for the M.A. Philosophy thesis in the *Competition for Master's Theses on Logic and Its Applications*, organized by the Polish Association for Logic and Philosophy of Science and the Faculty of Mathematics, Informatics and Mechanics, University of Warsaw.

2005 — **Cum laude**
A distinction for the overall results in the M.A. Philosophy program.

Other

Publications:
20+ publications in international, peer-reviewed journals, conferences and workshops. The full list available on my homepage and Google Scholar (200+ citations).

Community involvement:
- **Co-organizer** or **program committee** member for 10+ international conferences and workshops.
- **Guest editor** of a special issue of the International Journal of Approximate Reasoning.
- **Reviewer** for 20+ international journals, conferences and workshops.
- **Visiting researcher** at University of Edinburgh, FBK Trento, University of Bremen, TU Dresden.
- **Invited speaker** at Connected Data London Conference 2016-17, Semantic Web London Meetup 2017, Connected Data London Meetup 2016

Teaching:
- "Introduction to Description Logics" – an annual, 10h course for M.Sc. Artificial Intelligence (VU University Amsterdam, 2009-2012).
- Co-supervision of 1 master's thesis and 1 minimaster's project in M.Sc. Artificial Intelligence (VU University Amsterdam, 2011).
- Philosophy and ethics classes in public schools on all levels of non-higher education (University of Lodz, 8-week internship, 2004).

Languages:
- English (full professional proficiency); German, Dutch (basic, passive); Polish (mother tongue)