

# Kody Moodley

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**updated:** [Jan 2026](#)

Software Engineering, Knowledge Graphs, Ontologies, Automated Reasoning, Semantic Web,  
NLP, Machine Learning, Networks, FAIR principles, Biomedicine, Law, Digital Humanities

## WORK EXPERIENCE

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- 2022 - PRESENT **Senior Research Software Engineer**  
NETHERLANDS eSCIENCE CENTER, AMSTERDAM  
(Software engineering, research, project management, carpentries-style training)
  - Worked on 10+ projects building bespoke software for researchers at Dutch Institutions, with international partners and stakeholders. Worked in teams of between five and ten. [Software contributed](#)
- 2021 - 2022 **Assistant Professor in Data Science**  
INSTITUTE OF DATA SCIENCE, MAASTRICHT UNIVERSITY  
(Research, projects, teaching, organisation, funding acquisition)
  - PI for the NWA Catch Me If You Can project [€50,000]: Constructing an RDF Knowledge Graph of EU company information to prevent financial crimes such as tax evasion, money laundering and unfair employee dismissals. Use of web scraping, NLP, Machine Learning and Text annotation. Funded by NWA-Idea Generator programme.
- 2017 - 2021 **Joint Postdoctoral Researcher**  
INSTITUTE OF DATA SCIENCE, MAASTRICHT UNIVERSITY  
Maastricht, The Netherlands  
(Research, projects, teaching, organisation, funding acquisition)
  - LEX2RDF: Graph representation of legal information and citation networks using the W3C Resource Description Framework (RDF)
  - CEDAR: Can faceted search of biomedical data on the Web be enhanced by describing these data using Schema.org terminology
  - BioThings: How should provenance information be captured for scientific assertions made in Web data sources
  - Comenius: Development of a software applications to visualise and analyse Dutch court decision citation networks. Project required set up of a legal data infrastructure and Web API for court decisions; the development of Web scraping, data extraction and data wrangling modules
- 2016 - 2017 **Software Project Manager**  
DEV-X DIGITAL SOLUTIONS  
Johannesburg, South Africa  
(Development, manage team of developers, monitor progress)  
*Deliverable:* Hybrid mobile application to manage recruitment of blue-collar employees for a large mining firm in Southern Africa.  
*Tasks:* Software development, organise and chair meetings, track and report on progress, tech support for data capturers  
*Stack:* MySQL, PHP, JavaScript, AngularJS 1, Ionic 1, HTML/CSS.
- 2009 - 2016 **Researcher**  
CSIR MERAKA INSTITUTE and UNIVERSITY OF MANCHESTER  
Pretoria, South Africa and Manchester, United Kingdom  
(Research, write funding proposals and papers, give research talks)  
*Tasks:* Semantic Web, Automated Reasoning, Description Logics, OWL (The Web Ontology Language) research; Obtain MSc and PhD; Development of OWL-based software tools; Write proposals for funding; Web administration for the Centre for Artificial Intelligence Research (CAIR) and for various workshops and conferences; Present research at peer-reviewed international conferences and workshops in Europe and the US; Provide tutorials and seminars on OWL and Protégé (OWL ontology editor developed by a partnership between Stanford University and the University of Manchester).

## EDUCATION

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- APRIL 2016 PhD in COMPUTER SCIENCE  
**University of Manchester & University of KwaZulu-Natal**  
Thesis: “Defeasible Reasoning for Description Logic Ontologies”  
Advisors:
  - Prof. Thomas Meyer [UKZN],
  - Prof. Uli Sattler [Manchester],
  - Dr. Deshendran Moodley [UKZN]Full scholarship by the National Research Foundation, South Africa
- APRIL 2012 MSc. in COMPUTER SCIENCE [**Cum Laude**]  
**University of KwaZulu-Natal**  
Thesis: “Debugging and Repair of Description Logic Ontologies”  
Advisors:
  - Prof. Thomas Meyer,
  - Dr. Deshendran Moodley,
  - Dr. Ivan VarzinczakGrade: **Cum Laude (79%)**  
Full scholarship by the Council for Scientific and Industrial Research
- APRIL 2009 BSc. (Hons) in COMPUTER SCIENCE  
**University of Pretoria**  
Grade: 70.4%
- APRIL 2008 BSc. in COMPUTER SCIENCE [**top 5% student**]  
**University of Pretoria**  
Grade: 70.3%  
Award: Top 5 student of my year



## TEACHING & SUPERVISION

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2022 - PRESENT  
NETHERLANDS eSCIENCE CENTER  
Amsterdam, The Netherlands

### Technical Instructor

#### Workshops:

- Lorentz Center Workshop: Seeing the Difference (Using ontologies and controlled vocabularies for describing textual change in historical manuscripts),
- Fundamentals of Natural Language Processing

#### Roles:

Development of materials, instruction, coordinatorship

2017 - 2021  
MAASTRICHT UNIVERSITY  
Maastricht, The Netherlands

### Course Coordinator

Department: Data Science & Knowledge Engineering

Courses: Semantic Web Bachelor course (KEN3140),  
Building and Mining Knowledge Graphs Master course  
(KEN4256)

#### Tasks:

*Course planning:* scheduling, preparation of syllabus and learning materials (slide presentations, class handouts, software tools), deliver lectures and practical labs

*Assessment:* preparation & grading of assignments, projects and exams

### Teaching Assistant

Department: Data Science & Knowledge Engineering

Courses: Intelligent Systems

#### Tasks:

*Course activities:* deliver guest lectures, prepare slide presentations and create software tools for use in practical lab sessions, provide student assistance with assignments

*Assessment:* development of grading rubrics, grading of practical labs, assignments and exams

### Group Supervision

1. UM Honours+ interdisciplinary project:

6 bachelors students, 4 faculties

**Output:** data collection, analysis and report

2. DKE Master project:

*Legal dispute resolution chatbot*, 6 Master students

**Output:** Chatbot for resolving legal disputes

3. Maastricht Research-based Learning (MarBLE) project:

*LIPChat: legal inference platform for conversational agents*,  
3 Bachelor students

**Output:** Method for combining inference rules and machine learning for chatbots

### Individual Supervision

**PhD:** Andreea Grigoriu (2019 - present), *Computational Understanding of Hate Speech on Social Media Platforms*

**MSc:** Andreea Grigoriu (2018 - 2019), *Extraction & Semantic Enrichment of Facts from Court Decision Texts*

### Didactic Qualifications

BKO (UTQ) Basis Kwalificatie Onderwijs (University Teaching Qualification)

2007 - 2009 **Teaching Assistant**  
UNIVERSITY OF PRETORIA Department: Computer Science  
Pretoria, South Africa Courses: Data Structures & Algorithms, Operating Systems, Concurrent Systems  
**Tasks:**  
*Course planning:* development, delivery & supervision of programming lab practicals  
*Course activities:* Weekly tutoring; student mentoring  
*Assessment:* grading; invigilation of assignments & exams

## EVENTS ORGANISATION

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- 2025 **Fundamentals of Natural Language Processing**  
*Amsterdam, The Netherlands*  
Role: co-organiser, tasks: course co-developer, communications
- Lorentz Center Workshop: Seeing the Difference**  
*Leiden, The Netherlands*  
Role: co-organiser, tasks: co-developer of programme, funding acquisition (proposal writing), communications, instructor
- 2019 **Symposium on Consumer Protection and Data Privacy**  
*Maastricht, The Netherlands*  
Role: main organiser, tasks: scheduling, programming, funding acquisition, communications
- 2017 - 2018 **Re-thinking Justice Hackathon**  
*Brightlands Smart Services Campus, Heerlen, The Netherlands*  
Preparation of materials for pre-hackathon workshop,  
Supervision and mentorship of students during hackathon
- Maastricht University Data Science Research Seminar Series**  
*Maastricht University, The Netherlands*  
Maintaining mailing lists and sending communications,  
Developing format, arranging speakers, chairing sessions
- Introduction to Ontologies Workshop**  
*Maastricht, The Netherlands*  
Workshop to introduce beginners to ontologies & their applications  
Collect research materials for slide presentations  
Workshop planning  
Develop software for practical tasks

## TECHNICAL SKILLS

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Languages: PYTHON, R, JAVA, C/C++, PHP, HTML/CSS,  
JAVASCRIPT/TYPESCRIPT, SQL

Tools: Git, Jupyter Notebooks, Docker, Neo4J/Cypher, R2RML,  
YARRRML, SPARQL, OWL, RDF, SHACL, ShEx, SKOS

Libraries and Frameworks: PyTorch, Transformers, Gensim, NetworkX, spaCy, Scikit-learn,  
React, OWLAPI, RDFLib

OS: Linux, Mac OSX, MS Windows

Productivity: Github Projects, Slack, Zoom, Teams,  
CI/CD with Github Actions, LaTeX

Other: Ontologies, Knowledge Graphs, Description Logics (DLs),  
Web Ontology Language (OWL), RDF Mapping Language (RML)

## RESEARCH VISITS, CONFERENCES AND WORKSHOPS

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December 2019 Conference: JURIX 2019, Madrid, Spain

June 2019 Conference: Courts and Internet Governance, Brussels, Belgium

June 2019 Conference: ICAIL 2019, Montreal, Canada

24 - 25 July 2017 Conference: ISMB 2017, Prague, Czech Republic

9 - 11 May 2017 Hackathon: NCATS Biomedical Translator, Washington DC

3 - 4 April 2017 Workshop: GRECO COST Action, Malta

20 - 24 July 2014 Conference (Summer of Logic): KR 2014, Vienna, Austria

17 - 20 July 2014 Workshop (Summer of Logic): DL 2014, Vienna, Austria

Sept 2013 - Sept 2014 PhD Split-site scholarship: University of Manchester, UK

23 - 26 July 2013 Workshop: DL 2013, Ulm, Germany

1 - 3 October 2012 Conference: SAICSIT 2012, Pretoria, South Africa

10 - 14 June 2012 Conference: KR 2012, Rome, Italy

8 - 10 June 2012 Workshop: NMR 2012, Rome, Italy

7 - 10 June 2012 Workshop: DL 2012, Rome, Italy

May - June 2012 NET2 Project: Free University of Bozen-Bolzano, Italy

August - September 2011 NET2 Project: DERI, Galway, Ireland

29 - 30 August 2011 Conference: RR 2011, Galway, Ireland

16 - 22 July 2011 Conference: IJCAI 2011, Barcelona, Spain

13 - 16 July 2011 Workshop: DL 2011, Barcelona, Spain

May - July 2011 Research collaboration: University of Manchester, UK

May 2011 Protégé & OWL Tutorial: University of Manchester, UK

## COMMITTEES AND MEMBERSHIPS

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Reviewer	Journal of Web Semantics Journal of Biomedical Semantics KR 2020 AAAI 2020 IJCAI 2018 ISWC 2017, 2018 KESW 2017 AAAI 2015 SAICSIT 2014 ECSQARU 2013 DL 2011 - 2014 BNC@ECAI 2012 ARCOE@EKAW 2014
PC Member	AAAI 2020 KR 2020 IJCAI 2018 NLIWoD 2017, 2018 ISWC Posters and Demos track 2014-2015,2020

## PUBLICATIONS

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[List of Publications on Google Scholar](#)

## GRANTS AND AWARDS

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2026	Dutch Cultural Research Grant: ZOZ fonds Netherlands [€5,000]
2025	Lorentz Workshop grant: Lorentz Center
2020	NWA idea generator grant: NWO [€50,000] <b>PI</b>
2019	Comenius Teaching Fellowship grant: NWO [€50,000]
2019	European Commission: Consumer AI tools [€60,000]
2019	€1,000 travel grant to attend International Conference on Artificial Intelligence & Law (ICAIL) in Montreal, Canada.
2018	€5,000 case law analysis research grant: UM Faculty of Law Science Council
2016	Golden Key International Honour Society: Top 15% of students in my degree programme, Member ID - 14254712
2013	Travel Grant: To attend Description Logics Workshop 2013, Ulm, Germany
2013	Commonwealth Scholarship Commission (CSC) Split-Site PhD scholarship: Funding to complete PhD at a UK institution [€22,000]
2012	Travel Grant: To attend Description Logics Workshop 2012, Rome, Italy
2012	Personal Development Programme (PDP) Full PhD scholarship: National Research Foundation (NRF) [€55,000 (ZAR 810,000)]
2011	Masters Student Excellence Award: Masters research excellence prize awarded by CSIR Meraka Institute
2011	S2A3 Nomination: Nominated as UKZN's entry for the S2A3 medal: <a href="http://www.s2a3.org.za">http://www.s2a3.org.za</a>
2008	Bachelors Student Excellence Award: Outstanding results in my third year awarded by the University of Pretoria

## PERSONAL DATA

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NATIONALITIES: Dutch (naturalised), South African  
PLACE OF RESIDENCE: Maastricht, The Netherlands (April 2017 - Present)  
EMAIL: [kody.moodley@gmail.com](mailto:kody.moodley@gmail.com)  
WEBSITE: <http://kodymoodley.github.io>

## LANGUAGES

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ENGLISH: Mother tongue  
AFRIKAANS (DUTCH DERIVATIVE): Semi-fluent  
DUTCH: A2 (B1 in progress)