

Tom De Nies

Curriculum Vitae

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Experience

Freelance Contracts

Since 2022 **Development Team Lead**, *redpencil.io*, Belgium.

Since 2022, I've taken up the role of lead for the Kaleidos development team. This means I create technical requirements, make architectural decisions, and follow up on the implementation and deployment in an agile environment using Scrum. Technologies include: semantic.works, JavaScript, EmberJS, Python, OpenLink Virtuoso, Elasticsearch, Plausible, SigningHub, OSLO & Flemish URI standards, SPARQL, RDF(a), REST, JSON:API, Docker Compose, Git, Jira

2021 - 2022 **Linked Data Specialist**, *redpencil.io*, Belgium.

With the Kaleidos platform, the Flemish government is a global leader in terms of open and accessible government records, especially when it comes to Linked Data. However, with records dating back as far as 1982, a substantial amount of legacy data is left to be normalized to fit in the new data model and applications. My main objective is to identify these legacy records, and automate their normalization as much as possible.

2019 - 2022 **Freelance Developer**, *Toptal*, USA (remote).

Toptal is an exclusive network of the top freelance software developers, designers, finance experts, product managers, and project managers in the world. I've been working with various JavaScript-based frontend technologies (primarily Vue) for multiple clients since late 2019

2018 - 2021 **Full Stack Developer**, *QDots*, Belgium.

This startup is creating a novel way to check knowledge through a conversational approach. I joined as a developer to build the full technology stack (MongoDB, Express, AngularJS, Node) for the prototype's content management.

Summer 2020 **Frontend Developer**, *KU Leuven*, Belgium.

I worked as a freelance Angular developer on the European project FanTALES, where I helped develop an authoring application for interactive storytelling for learning languages. See <https://www.fantales.eu/>

2018 - 2020 **Software Lead**, *Strategic Water*, Belgium.

Strategic Water is a Belgian startup, aimed at water technology providers, merging cutting-edge data science with water treatment technologies, in order to optimize performance and increase sales. I was in charge of the development of the analytical dashboard's full technology stack (MongoDB, Express, Angular, Node) <https://strategicwater.be>

2017 **MVP Developer**, *Hyperflow.tv*, Australia.

Hyperflow is a startup whose main product is a next-generation video tagging platform for connecting people with knowledge and services through media. I was hired to build the front- and backend of the first working prototype, based on the founder's ideas, designs and mockups.

Employment

May – Dec. **Postdoctoral Researcher**, *imec – Ghent University – IDLab*, Belgium.

2016 After obtaining my PhD in May 2016, I remained as a postdoc with the lab, which underwent some changes: iMinds became imec, and Data Science Lab merged into IDLab. My main tasks were to lead a research project, follow up on PhD students' research, write project proposals, and consulting organizations about the benefits of Linked Data.

- March 2014 **Visiting Researcher**, *VU Amsterdam*, The Netherlands.
 During my 1-month visit to VU Amsterdam, I was mostly working on my research in the field of provenance reconstruction and trust assessment, in collaboration with the people from the Web & Media and Knowledge Representation & Reasoning Groups.
- 2011–2016 **Researcher**, *iMinds – Ghent University – MMLab*, Belgium.
 My PhD research was centered around automatic assessment of the value and trustworthiness of content on the Web, based on enriched metadata and provenance. Detailed responsibilities:
 - research & prototyping in the context of national and international projects;
 - individual research efforts and proposal writing;
 - contributions to standardization at W3C (i.e., Provenance Working Group in 2012–2013);
 - supervision of master theses and exercises for the Multimedia course.
- 2010–2011 **Junior System Engineer**, *Realdolmen*, Belgium.
 As a system engineer, I was deployed in various companies and projects for the installation, configuration and management of IT infrastructure components, mainly Microsoft SQL Server.

Education

- 2011–2016 **PhD in Computer Science Engineering**, *Ghent University*, Belgium.
 2008–2010 **MSc in Computer Science Engineering**, *Ghent University*, Belgium, *cum laude*.
 2005–2008 **BSc in Informatics**, *Ghent University*, Belgium.

Dissertations

- PhD *Enabling Automatic Provenance-Based Trust Assessment of Web Content*
 Master *The Social Gaming Party-shirt – An interactive application using movement, music and luminescent textile in a social gaming context**
 *Awarded by the Belgian industrial Research and Development (BiR&D) MSc thesis programme 2009 <http://www.birdbelgium.com/call2009/awards-call>

Publications

<https://scholar.google.be/citations?user=ardF6QoAAAAJ>

Primary skills

Backend	NodeJS, Python	Frontend	Javascript, Vue, EmberJS
Web Design	HTML, CSS	Databases	MongoDB, SQL, Virtuoso
Web of Data	RDF, Linked Data, SPARQL		

Languages

Dutch	Excellent	<i>Native speaker</i>
English	Excellent	<i>Full professional & scientific proficiency</i>
French	Limited working proficiency	

Awards

- ISWC 2013 'Best Demo' – *Git2PROV: Exposing Version Control System Content as W3C PROV*.
 ISWC 2012 'Best Demo' – *Everything is Connected: Using Linked Data for Multimedia Narration of Connections between Concepts*.