Myrthe Reuver

Computational Linguist, Data Scientist, PhD Candidate

Researcher and PhD Candidate (started: Sept 2020) at the Free University of Amsterdam (VU), advisors: prof. dr. Antske Fokkens (VU) and dr. Suzan Verberne (Leiden University). My research is on NLP to support democracy in news recommendation, and my broader interest is in **societally and scientifically responsible NLP in complex domains**, and in computationally unpacking complex concepts (such as democratic values and diversity).

CV last edited: February 22, 2022

🌐 https://myrthereuver.github.io/   ✉ myrthe.reuver[at]vu.nl

🝆 myrthereuver   Twitter: @myrthereuver

Research Experience

PhD candidate: Diverse News Recommendation   **2020 – present**

Free University of Amsterdam (VU)

- Work on language technology to automatically detect (viewpoint) diversity in news texts, and enable a democracy-supporting news recommender.
- Supervisors: prof. dr. Antske Fokkens (VU) and dr. Suzan Verberne (Leiden University)

Internship: Graduation Projects Clinical Natural Language Processing   **2019 – 2020**

Topicus Healthcare, Deventer

- MSc thesis on classification of complaint category in emergency GP triage (huisartsenpost)
- ResMA thesis on smoking status detection from EMRs with weak supervision & transfer learning

Research MA Internship: *Classifying Urban Legends*   **2019**

Meertens Institute, Amsterdam

Results:

- a popular science article in *Neerlandistiek*
- a conference presentation at DHBenelux 2019
- a poster presentation at Computational Linguistics in the Netherlands 2020.

Participant "ICT with Industry" research week   **2019**

Lorentz Centre, Leiden

- Developing a prototype of an automatic keyword classifier
  for the National Library (Koninklijke Bibliotheek, KB).
- Results: a demo prototype, a report, and an NWO Science vlog.

MA Honours Project: *Thinking Machines in Healthcare*   **2017 – 2018**

Radboud Honours Academy & REShape Innovation, Nijmegen

- 1-year Honours think tank with master students from different disciplines
  on prototyping an AI for people with type 2 Diabetes.

BA Honours Project: *Text Mining in Old English*   **2014 – 2016**

Radboud Honours Academy, Nijmegen

- 2-year research project, included Text Mining summer school in Aarhus, Denmark.

Student Research Assistent   **2014 – 2017**

English Department, Radboud University

- Student assistant in research projects, mostly in historical English and Dutch.
- Tasks: data annotation and data cleaning/ preprocessing.

Education

Master of Science (MSc) Cognitive Science & Artificial Intelligence **2018 – 2019**

Tilburg University
- GPA: 7.9 / 10 (with distinction)
- Thesis: "What Kind of Emergency? Complaint Labels for Dutch Short Clinical Texts" (Grade: 8/10)
- Courses (selection): Machine Learning, Deep Learning, Advanced Data Processing with Python

Research MA Linguistics, track: Language & Speech Technology **2017 – 2020**

Radboud University
- GPA: 8.3 / 10 (cum laude)
- Thesis: "Finding the Smoke Signal: Smoking Status Extraction & Classification" (Grade: 8 / 10)
- Internship: Classifying Urban Legends at the Meertens Institute (Grade: 9 / 10)
- Courses (selection): Text & Multimedia Mining, Language & Speech Technology, Advanced Statistics in R

BA English Language & Culture, specialization: Linguistics **2014 – 2017**

Radboud University
- GPA: 8.6 / 10 (cum laude)
- **certificate** BA Honours Program: 2-year Text Mining Project + Summerschool Aarhus University, Denmark.

Bachelor of Journalism, first-year diploma **2012 – 2013**

Christelijke Hogeschool Ede (CHE)
Radio Presenter at "Radio Almelo" (AAFM)

HAVO (higher general secondary education) **2007 – 2012**

OPDC 't Nijrees Almelo

Summer & Winter Schools..

- **"Research Integrity" Summer Seminar**, *Netherlands Research Integrity Network.* **2021**
- **"Trolls, bots and dictators" Summer School**. *Digital Methods Initiative, Uni of Amsterdam* **2019**
- **LOT (Research School Linguistics) Summer School**, *University of Groningen.* **2018**
  Completed courses: "Introduction to nonlinear regression modeling", "Language, Computation & Technology", "Mechanisms and Methods in Historical Linguistics".
- **"Text Mining for the Humanities" Summer School** *Aarhus University, Denmark.* **2016**

Teaching

Teacher BA + MA course "Programming in Python for Text" **2021**

Vrije Universiteit Amsterdam

Teaching Assistant BA course "Information Science" **2018 – 2020**

Radboud University Nijmegen

Awards and Grants

Winning team Hackathon "Designing a Diverse-aware Recommender System" **2020**

NPO (Dutch Public Broadcaster) and Media Perspectives

Leadership

Founder & Editor-in-Chief student journal RU:ts **2018 – 2020**

Academic Service

Design online student internship market	**2020,2021**
On-site student volunteer EMNLP 2021	**2021**
On-site student volunteer RecSys2021	**2021**
On-site student volunteer CLIN28	**2018**

Reviewing Experience

- Computational Communiction Science Journal
- SIGIR 2021 (meta-review)

Skills

- Machine Learning, Natural Language Processing
- (Academic) Writing
- Public Speaking and Presenting
- Cloud Computing, Linux

Languages

- **Python** including sklearn & pandas, **R** – proficient
- **html & css**, familiar

- **Dutch**, mothertongue, **(Academic) English**, C2 (near-Native)
- **German**, B2 (decent), **Latin**, B1 (basic)

Communicating Research Outcomes

Publications

- **Myrthe Reuver**, Suzan Verberne, Morante Roser, and Antske Fokkens. Is stance detection topic-independent and cross-topic generalizable? – A reproduction study. In: *Proceedings of the 8th Workshop on Argument Mining*, co-located at EMNLP 2021, pages 46–56, Punta Cana, Dominican Republic, 2021. Association for Computational Linguistics. URL.
- **Myrthe Reuver**, Nicolas Mattis, Marijn Sax, Suzan Verberne, Nava Tintarev, Natali Helberger, Judith Moeller,Sanne Vrijenhoek, Antske Fokkens, and Wouter van Atteveldt. Are we human, or are we users? The role ofnatural language processing in human-centric news recommenders that nudge users to diverse content. In: *Proceedings of the 1st Workshop on NLP for Positive Impact*, co-located at ACL-IJCNLP 2021, pages 47–59. Association for Computational Linguistics, 2021. URL.
- **Myrthe Reuver**, Antske Fokkens, and Suzan Verberne. No NLP task should be an island: Multi-disciplinarity for diversity in news recommender systems. In: *Proceedings of the EACL Hackashop on News Media Content Analysis and Automated Report Generation*, pages 45–55. Association for Computational Linguistics, 2021. URL.

Peer Reviewed Abstracts and Posters

- **Myrthe Reuver**, Nicolas Mattis, Marijn Sax, Suzan Verberne, Nava Tintarev, Natali Helberger, Judith Moeller,Sanne Vrijenhoek, Antske Fokkens, and Wouter van Atteveldt. *"Are we human, or are we users? The role of natural language processing in human-centric news recommenders that nudge users to diverse content."* **Poster** at Interdisciplinarity on the Digital Society, Network Institute. URL.
- **Myrthe Reuver**, Suzan Verberne, Roser Morante and Antske Fokkens. 9 July 2021. *"Viewpoints in the news: claim detection for diverse news recommendation."* **Poster** at Computational Linguistics in the Netherlands (CLIN) 31 (Online), 9 July 2021. URL.

- **Myrthe Reuver**, Iris Hendrickx, Jeroen Kuijpers. *"Smoking Status Detection with a Pre-Trained Transformer and Weak Supervision in Dutch Electronic Patient Files."* **Talk** at Computational Linguistics in the Netherlandsa (CLIN) 31 (Online), 9 July 2021. <u>URL</u>.
- **Myrthe Reuver**. *"How Similar are Poodles in the Microwave? Classification of Urban Legend Types"*. Poster at Computational Linguistics in the Netherlands (CLIN) 30, Utrecht, January 2020. <u>URL</u>.
- **Myrthe Reuver**. *"Making the Computer Understand Urban Legend Types (And Making Humans Understand the Computer)"*. Moving Humanities Graduate Conference, Nijmegen: 24 October 2019. <u>URL</u>.
- **Myrthe Reuver**. *"Amputation or Accident? Classifying Dutch Urban Legends into Story Types with a Hierarchical Classifier"*. Digital Humanities BeNeLuX, Liège: 13 Sept 2019. <u>URL</u>.
- **Myrthe Reuver**. *"Whose Gender is It? Possessive Pronoun Errors by Portuguese L2 speakers of English."* 13th TWIST Student Conference in Linguistics, Leiden. 13 April 2019. <u>URL</u>.
- **Myrthe Reuver**. *"First-Person Visibility: Ælfric's Pronouns in his Prefaces."*, StuTs Student Linguistics Conference, Nijmegen. 24 November 2017. <u>URL</u>.

Invited Talks
- **Myrthe Reuver**. *"Hackathons, Shared Tasks, and Papers: Collaboration and Interdisciplinarity with Data on Complex Problems"*. Free University of Amsterdam, University Library Data Conversations/ Online. 7 April 2021. <u>Video</u>

Popular Science
- **Myrthe Reuver**. (2021) "5 Things I Learned During the First Year of my PhD." Blog post. <u>URL</u>
- **Myrthe Reuver**, Nicolas Mattis. (2020) "Hackers of Science: Lessons from interdisciplinary science in a Hackathon" Socializing Science, blog post. <u>URL</u>
- **Myrthe Reuver**. (2019). "Hoe een computer broodjeaapverhalen leert categoriseren." Vertelcultuur Online. <u>URL</u>
- **Myrthe Reuver**. Vlog for research week "ICT with Industry". <u>URL</u>

Reports (Not Peer Reviewed)
- **Myrthe Reuver**, Nicolas Mattis. (2021). "Implementing Evaluation Metrics Based on Theories of Democracy in News Comment Recommendation (Hackathon Report)" In: Proceedings of the EACL Hackashop on News Media Content Analysis and Automated Report Generation (co-located at EACL 2021, online). Association of Computational Linguistics, p. 134–139. <u>URL</u>
- Anthony Burton, Elena Aversa, Alessandra Facchin, Ivana Emily Škoro, Henri Mütschele, **Myrthe Reuver**, Shenglang Qing. (2019). "Streams of the Deep Web: Rebel Media, YouTube, and the algorithmic shaping of media ecosystems." Digital Methods Wiki, UvA Summerschool. <u>URL</u>
- Brandsen, A., Kleppe, M., Veldhoen, S., Zijdeman, R., Huurman, H., Vos, H. De, Goes, K., Huang, L., Kim, A., Mesbah, S., **Reuver, M.**, Wang, S., Hendrickx, I. (2019). "Brinkeys.." KB Lab:The Hague, the Netherlands. <u>URL</u>

Book Reviews
- **Myrthe Reuver** (2022) Summary & Book Review of "Linguistics for the Age of AI". In: The Linguist List 33.135. <u>URL</u>

Media Appearances
- 18 January 2022. *"Zo werd Myrthe Reuver de dupe van haar data: 'Ze geloven in eerste instantie het systeem'"*. Interview and article in national newspaper Trouw about my experiences with the credit scoring algorithm of the Dutch National Railways (NS). <u>URL</u>