Myrthe Reuver

Computational Linguist, Data Scientist, PhD Candidate

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Research Experience

PhD candidate: Diverse News Recommendation   **Amsterdam**

Free University of Amsterdam (VU)   *Sept 2020 – present*

- PhD project on diversity in news recommender systems. Intention to work with language models to automatically detect diversity in news texts.
- Supervised by prof. dr. Antske Fokkens of the CLTL research group at the Free University of Amsterdam and dr. Suzan Verberne at Leiden University

Graduation Projects Clinical Natural Language Processing   **Deventer**

Topicus Healthcare   *Dec 2019 – Sept 2020*

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

ResMA Research Internship *Classifying Urban Legends*   **Amsterdam**

Meertens Institute   *Feb 2019 – July 2019*

- Results: a popular science article in *Neerlandistiek*, a simple interface demo for the model, a conference presentation at the DHBenelux conference in Liège (September 2019), and a poster presentation at CLIN30 (Computational Linguistics in the Netherlands) in January 2020.

Honours MA program: *Thinking Machines*   **Nijmegen**

Radboud Honours Academy & REshape Innovation   *Sept 2017 - June 2018*

- Interdisciplinary Honours Program: 1-year Honours think tank programme on prototyping an AI for people with type 2 Diabetes.

Education

Master of Science (MSc) Cognitive Science & Artificial Intelligence   **Tilburg**

Tilburg University   *2018 – 2020*

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

Research MA Linguistics, track: Language & Speech Technology   **Nijmegen**

Radboud University   *2017 – 2020*

- GPA: 8.3 / 10 (cum laude)
- Thesis: "Finding the Smoke Signal: Smoking Status Extraction & Classification" (Grade: 8 / 10)
- Internship: Classifying Urban Legends at Meertens Institute (Grade: 9 / 10)
- **Certificate**: Interdisciplinary Honours Program for Master's Students: 1-year Honours think tank program on "Thinking Machines in Healthcare"
- Member of Curriculum Committee; founder + editor-in-chief student linguistics journal RU:ts
- Courses (selection): Text & Multimedia Mining, Language & Speech Technology, Advanced Statistics in R

BA English Language & Culture, specialization: Linguistics   **Nijmegen**

Radboud University   *2014 – 2017*

- GPA: 8.6 / 10 (cum laude)
- Thesis: Prosodic Triggers in Late Middle English V2 (Grade: 8/10)
- **certificate** BA Honours Program: 2-year Text Mining Research Project
- Text Mining Summerschool at Aarhus University, Denmark; Extracurricular Latin

Bachelor of Journalism, first-year diploma **Ede**
Christelijke Hogeschool Ede (CHE) *2012 – 2013*
Radio Presenter at "Radio Almelo" (AAFM)

HAVO (higher general secondary education), Culture & Society profile **Almelo**
OPDC 't Nijrees Almelo *2007 – 2012*

Teaching

Teaching Assistant BA course "Information Science" **Radboud University, Nijmegen**
prof. dr. Martha Larson *April 2018 – June 2020*
- A first-year bachelor's course about the basics of (digital) information science, data, privacy, algorithms and machine translation. Tasks: leading practical sessions, lecturing segments of lectures + designing, preparing and grading exercises, assignments, and exams.

Events

Winning team Hackathon "Diverse Recommendation" **Virtual**
NPO and Media Perspectives *October 2020*
- A 24-hour hackathon on designing a topic, viewpoint, and content diverse news & media recommender for Dutch public broadcaster NPO. 5 teams of Data Scientists and researchers competing.
- Won the hackathon with an interdisciplinary team of philosophers, communication scientists, and computationals (Marijn Sax, Felicia Loecherbacher, Sanne Vrijenhoek and Nicolas Mattis)

Information Technology with Industry research week **Leiden**
Lorentz Centre and NWO *January 2019*
- Full week of research teams working with an industry partner on their technology-related research challenge. Participated in 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 about my experiences.

Leadership and Academic Service

Founder & Editor-in-Chief **Nijmegen**
RU:ts Student Linguistics Journal *Sept 2018 – Sept 2020*
- Together with fellow master's students Iris Faber / Sander Nederveen, started a journal where students are authors, editors, and peer reviewers.

Skills

- Text Mining / Data Mining Research with complex data
- Machine Learning, Natural Language Processing
- (Academic) Writing
- Public Speaking and Presenting

Languages

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

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

Communicating Research Outcomes

Conference Talks (Peer Reviewed Abstracts)

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

Invited Talks

- Reuver, Myrthe. *"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
- Myrthe Reuver. "Finding the Smoke Signal: Smoking Status Extraction Classification." MA Course "Text Mining", Radboud University Nijmegen (Online), 25 November 2020.

Popular Science

- Myrthe Reuver, Nicolas Mattis. (2020) "Hackers of Science: Lessons from interdisciplinary science in a Hackathon" Socializing Science, blog.
- Myrthe Reuver. (2019) "Hoe een computer broodjeaapverhalen leert categoriseren." Vertelcultuur Online.
- Reuver, Myrthe. Vlog research week "ICT with Industry". `https://www.youtube.com/watch?v=-m92LxE5hQ4`

Reports (Not Peer Reviewed)

- Anthony Burton, Elena Aversa, Alessandra Facchin, Ivana Emily Škoro, Henri Mütschele, Shenglang Qing, Myrthe Reuver. (2019). "Streams of the Deep Web: Rebel Media, YouTube, and the algorithmic shaping of media ecosystems." Digital Methods Wiki, UvA Summerschool.
- 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.

Publications

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, 2021.

Myrthe Reuver and Nicolas Mattis. 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*, pages 134–139, 2021.

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. In *Proceedings of the 1st Workshop on NLP for Positive Impact, co-located at ACL-IJCNLP 2021*, pages 47–59, 2021.