

Jeremy Barnes

Curriculum Vitae

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Work Experience

- 2018–current **Postdoctoral Fellow**, *Language Technology Group*, University of Oslo.
2015–2018 **Teaching Assistant**, *Pompeu Fabra University*, Barcelona.
2008–2015 **Teacher of English as a Foreign Language**, *Institute for North American Studies (IEN)*, Barcelona.

Education

- 2015–2019 **PhD in Computational Linguistics**, *Pompeu Fabra University*, Barcelona.
Cum Laude / International Mention
2017–2018 **Research Stay**, *University of Stuttgart*, Stuttgart.
Supervisors: Roman Klinger and Sabine Schulte im Walde
2014–2015 **Masters in Linguistics**, *Pompeu Fabra University*, Barcelona, GPA – 9.23.
Cum Laude
2001–2007 **Bachelors in Linguistics**, *The University of Houston*, Houston, GPA – 8.5.
Magna cum Laude

Doctoral Thesis

- Title *Cross-lingual Sentiment Analysis for Under-resourced Languages*
Supervisors Toni Badia & Patrik Lambert
Committee Sebastian Padó, Alexandra Balahur & Horacio Saggion
Description This thesis explored machine learning techniques which require a minimal amount of parallel data to perform sentiment analysis in a resource-poor target language using only annotated sentiment data in a resource-rich language. I performed experiments with deep learning methods at several levels of granularity, achieving state-of-the-art results on several tasks and also showed that the techniques developed could be used for neural domain adaptation.

Teaching Experience

- 2020 **Neural Methods in Natural Language Processing: IN5550**, *University of Oslo*, Oslo.
I contributed to the planning and creation of course materials, and will give lectures and grade assignments.

- 2020 **Introduction to Artificial Intelligence and Machine Learning: IN3050**, *University of Oslo*, Oslo.
I contributed by creating course material and giving lectures.
- 2018 **Invited Lecturer, Sentiment Analysis for Big Data**, *Center for Language and Computation, University of Barcelona*, Barcelona.
I gave a 3-hour lecture on basics of deep learning for sentiment classification, state-of-the-art machine-learning methods, and current challenges for a Master's level NLP program.
- 2015–2018 **Information Technology**, *Pompeu Fabra University*, Barcelona.
I acted as assistant lecturer for the lab sessions in a mandatory Bachelor's course. I ran the lab sessions, where students humanities students were introduced to concepts of information technology, and graded assignments, as well as the final exams.
- 2015–2017 **Language and Technology: Case Studies**, *Pompeu Fabra University*, Barcelona.
I acted as assistant lecturer for the lab sessions in an elective Bachelor's course. I ran the lab sessions, which concentrated on introducing instances of language technology, and graded assignments. I additionally created pedagogical material (slides and small code exercises) in collaboration with the main lecturers.
- 2017 **Translation Technology**, *Pompeu Fabra University*, Barcelona.
I acted as assistant lecturer for the lab sessions in a mandatory Bachelor's course. I ran the practical sessions, where we introduced translation students to basic ideas of corpus linguistics, CAT tools, translation memories, and text processing.
- 2017 **Affective Computing and Emotion Analysis**, *University of Stuttgart*, Stuttgart.
I served as a teaching assistant for this Master's course on machine learning and deep learning methods for affective computing. I helped organize the class, proposed materials, interacted with students, and graded exams.

Supervision

- 2019–2023 **Gaurish Thakkar**, *PhD Thesis: Fine-grained Cross-lingual Sentiment Analysis for Low-resource Languages*, University of Zagreb.
Co-supervision with Nives Mikelić Preradović.
- 2020–2021 **Petter Mæhlum**, *Master's Thesis: An Effective Error Analysis Strategy for Fine-grained Sentiment Analysis*, University of Oslo.
Co-supervision with Lilja Øvrelid.
- 2020–2021 **Halvor Holjem Bugge**, *Master's Thesis: Multi-task Incorporation of External Information in Neural Networks*, University of Oslo.
Co-supervision with Erik Velldal.
- 2019–2020 **Egil Rønningstad**, *Master's Thesis: Fine-grained Sentiment Analysis for Low-resource Languages*, University of Oslo.
Co-supervision with Lilja Øvrelid.
- 2019 **Irean Navas Alejo**, *Master's Thesis: Cross-lingual Approaches to Fine-grained Emotion Analysis*, Pompeu Fabra University.
Co-supervision with Toni Badia.
- 2018 **Àlex R. Atrio**, *Master's Thesis: Reordering for Cross-lingual Sentiment Analysis*, Pompeu Fabra University.
Co-supervision with Toni Badia.

- 2017 **Yibing Yang**, *Master's Thesis: Extraction of Sentiment Aspects in Catalan*, Pompeu Fabra University.
Co-supervision with Toni Badia.

Publications

Journal Publications

Jeremy Barnes and Roman Klinger. 2019. *Embedding Projection for Targeted Cross-Lingual Sentiment: Model Comparisons and a Real-World Study*. Journal of Artificial Intelligence Research.

Jeremy Barnes, Erik Velldal, Lilja Øvrelid. 2019. *Improving Sentiment Analysis with Multi-task Learning of Negation*. Journal of Natural Language Engineering - Special Issue on Processing Negation.

Peer-Reviewed Conference Publications

Pierre Lison, Aliaksandr Hubin, Jeremy Barnes, Samia Touileb. 2020. *Named Entity Recognition without Labelled Data: A Weak Supervision Approach*. ACL 2020. Acceptance rate: 23.9%.

Lilja Øvrelid, Petter Mæhlum, Jeremy Barnes, Erik Velldal. 2020. *A Fine-Grained Sentiment Dataset for Norwegian*. LREC 2020.

Jeremy Barnes, Roman Klinger, and Sabine Schulte im Walde. 2018. *Bilingual Sentiment Embeddings: Joint Projection of Sentiment Across Languages*. ACL 2018. Pages 2483–2493. Acceptance rate: 24.9%.

Jeremy Barnes, Roman Klinger, and Sabine Schulte im Walde. 2018. *Projecting Embeddings for Domain Adaption: Joint Modeling of Sentiment Analysis in Diverse Domains*. COLING 2018. Pages 818–830. Acceptance rate: 37.4%.

Jeremy Barnes, Patrik Lambert, and Toni Badia. 2016. *Exploring Distributional Representations and Machine Translation for Aspect-based Cross-lingual Sentiment Classification*. COLING 2016. Pages 1613–1623. Acceptance rate: 32%.

Àlex R. Atrio, Toni Badia, Jeremy Barnes. 2019. *On the Effect of Word Order on Cross-lingual Sentiment Analysis*. SEPLN 2019. Received Best Paper Award.

Petter Mæhlum, Jeremy Barnes, Lilja Øvrelid, Erik Velldal. 2019. *Annotating evaluative sentences for sentiment analysis: a dataset for Norwegian*. NoDaLiDa 2019.

Jeremy Barnes, Samia Touileb, Lilja Øvrelid, Erik Velldal. 2019. *Lexicon Information in Neural Sentiment Analysis: a Multi-task Learning Approach*. NoDaLiDa 2019.

Jeremy Barnes, Patrik Lambert, and Toni Badia. 2018. *MultiBooked: A Corpus of Basque and Catalan Hotel Reviews Annotated for Aspect-level Sentiment Classification*. LREC 2018. Pages 656–660.

Peer-Reviewed Workshop Publications

Jeremy Barnes, Roman Klinger, and Sabine Schulte im Walde. 2017. *Assessing State-of-the-art Sentiment Models on State-of-the-art Sentiment Datasets*. WASSA 2017. Pages 2–12. Cited 25 times in 2 years.

Hendrik Schuff, Jeremy Barnes, Julian Mohme, Sebastian Padó, and Roman Klinger. 2017. *Annotation, Modelling and Analysis of Fine-grained Emotions on a Stance and Sentiment Detection Corpus*. WASSA 2017. Pages 13–23. *Cited 14 times in 2 years*.

Jeremy Barnes, Lilja Øvrelid, Erik Velldal. 2019. *Sentiment Analysis Is Not Solved! Assessing and Probing Sentiment Classification*. BlackBoxNLP Workshop at ACL 2019. Pages 12–23.

Çagri Çöltekin, Jeremy Barnes. 2019. *Neural and Linear Pipeline Approaches to Cross-lingual Morphological Analysis*. VarDial Workshop 2019.

Jeremy Barnes. 2019. *LTG-Oslo Hierarchical Multi-task Network: The importance of negation for document-level sentiment in Spanish*. NEGES Workshop at SEPLN 2019.

Awards and Fellowships

- 2019 **Best Paper Award**, *Sociedad Española de Procesamiento de Lenguaje Natural (SEPLN 2019)*, Bilbao.
- 2016–2019 **SGR-DTCL Predoctoral Scholarship**, *Pompeu Fabra University*, Barcelona.
- 2017–2018 **SFB Collaborative Research Grant**, *University of Stuttgart*, Stuttgart.
- 2005–2006 **DAAD Leipzig/Houston Scholarship**, *University of Leipzig*, Leipzig.
- 2001–2006 **Academic Merit Scholarship**, *University of Houston*, Houston.

Computer skills

- Systems Linux, Windows
- Languages Python, Java, R
- Libraries Pytorch, Tensorflow, Theano, Keras, Sklearn, Numpy, Matplotlib, NLTK, Freeling, Stanford CoreNLP, IXA pipes, Moses, OpenNMT

Languages

- English **Mothertongue**
- Spanish **C.2** *Excellent written and spoken level*
- Catalan **C.1** *Good written and spoken level*
- Basque **C.1** *Good written and spoken level*
- German **B.2** *Good written level and adequate spoken level*
- Norwegian **B.2** *Good written level and adequate spoken level*