

Esther LE GRÉZAUSE

PERSONAL DATA

AFFILIATIONS: Linguistics Department, *University of Washington*, Seattle WA
UFR d'Études Anglophones, *Université Paris Diderot*, Paris, France
PLACE OF BIRTH: Villecresnes, France
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OBJECTIVE

Apply my linguistic speech research expertise and my technology experience to current industry workstreams in Natural Language Processing and Understanding in an internship, with the aims of gaining industry experience and developing skills for an industry career in NLP/NLU

RESEARCH AND INTERESTS

Current research: investigates the functions and the acoustic properties of disfluencies in spontaneous speech, with the goal of extracting information for improving automatic spontaneous spoken language understanding and processing

Interests: Spontaneous Speech, Non-clinical and Clinical Disfluencies, Sentiment Analysis, Automatic Recognition of Stance, Topic Segmentation, Machine Translation, Intelligent Virtual Assistants, Interactive Voice Response

RELEVANT WORK EXPERIENCE

CONTRACTOR FOR TOSHIBA SPEECH LAB, CAMBRIDGE, UK
1 week contract. **Description:** diagnosing and improving 800 sentences of French synthesized speech. **Responsibilities:** Coming up with a naturalness rating based on violation of criteria (intonation, vowel quality, aspiration, syllabification...), specifying issues and how to fix them in a comment box - to know how to improve or fix sentences. **Outcomes:** My diagnoses were applied to a new model of synthesized speech to make it sound more natural.

EDUCATION

2012 - PRESENT *PhD Candidate*, Linguistics, The University of Washington, Seattle WA
2016 - PRESENT *PhD Candidate*, English Linguistics, Université Paris Diderot, Paris, France
JUNE 2015 MA in Linguistics, The University of Washington, Seattle WA
JUNE 2012 MA in English Phonetics & Phonology, Université Paris Diderot, Paris
JUNE 2010 BA in English, Université de Nantes, Nantes

QUALIFICATIONS

Very proficient: Praat, R, Microsoft Office, \LaTeX
Intermediate: Python, NLTK, Praat Scripting Language
Basic: Shell Scripting, Java
Languages: French: Native; English: Fluent; Spanish: Proficient;
Hindi: Beginner; Marathi: Research in Phonetics and Phonology

SCHOLARSHIPS AND CERTIFICATES

- 2016 Excellence in Linguistics Research Graduate Fellowship. One quarter of funding for research purposes.
- 2016 Graduate Certificate in Second/Foreign Language Teaching - French
- 2015 University of Washington Travel Grant
- 2014 Software Carpentry Instructor

RELEVANT COURSEWORK

DEEP PROCESSING TECHNIQUES FOR NLP

- Building a Context Free Grammar (CFG) - Explore basics of CFG design
- Automatically converting CFG to Chomsky Normal Form (CNF)
- Implementing CKY parser algorithm
- Implementing PCFG - extract rule probabilities and explore parser evaluation
- Building a Feature-based Grammar for the Earley Chart Parser
- Grammar building with Semantic Attachments - logic and lambda calculus based representations of natural language semantics
- Implementing and computing similarity - cosine similarity, frequency, PMI - Analyzing effects of different context sizes and association measures in distributional similarity models
- Word sense disambiguation
- Explore issues in pronominal anaphora resolution - Hobbs algorithm

COMPUTATIONAL LINGUISTICS TOPICS - ASRS

- Concatenative Speech Synthesis using spectrograms, waveforms and smoothing - implications for concatenative Text To Speech (TTS)
- Implementing Grapheme to Phoneme (G2P) translation
- Implementing Tongue twister generator
- Implementing Rhyme generator

INTRODUCTION TO COMPUTATIONAL LINGUISTICS

SIGNAL PROCESSING

ADVANCES IN QUANTITATIVE PSYCHOLOGY – BAYESIAN MODELING

EXPERIMENTAL PHONETICS AND SIGNAL PROCESSING

INTRODUCTION TO PROGRAMMING

JOURNAL ARTICLE

Le Grézause, E. (2015). Investigating Weight-Sensitive Stress in Disyllabic Words in Marathi and its Acoustic Correlates. *University of Washington Working Papers in Linguistics*, 33, 33–52.

RESEARCH ASSISTANTSHIP - UNIVERSITY OF WASHINGTON

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| Fall 2016 - Winter 2017 | RA for NSF - IIS <i>Modeling Idiosyncrasies of Speech for Automatic Spoken Language Processing</i>
Primary investigator: Professor Mari Ostendorf, Electrical Engineering, <i>University of Washington</i>
Secondary investigator: Professor Richard Wright, Department of Linguistics, <i>University of Washington</i> |
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REFEREED CONFERENCES

- 2016 | "Weight-sensitive stress and acoustic correlates of disyllabic words in Marathi" *171st Meeting of the Acoustical Society of America*, Salt Lake City, Utah
- 2016 | "Effects of stance strength and word group on the acoustic properties of the vowel in um and uh in spontaneous speech in Pacific Northwest American English" *42nd Annual Meeting of the Berkeley Linguistics Society*, Berkeley, CA
- 2016 | "Discursive patterns of um and uh in spontaneous speech in Pacific Northwest American English" *90th Annual Meeting of the Linguistic Society of America*, Washington D.C.
- 2015 | "Weight-sensitive stress in disyllabic words in Marathi and the case of the high vowels" *31st Northwest Linguistics Conference*, Victoria, BC
- 2014 | "Categorization issues and POS tagging of the marker 'so' in oral English" *12th ESSE conference*, Kosice, Slovakia
- 2012 | "Form and Function of Connectives in Oral Narratives" *16^{ème} colloque d'anglais oral de Villetaneuse « L'anglais oral mondialisé ? »*, Villetaneuse, France

PRESENTATIONS

- 2016 | "Tools for teaching French pronunciation: teaching strategies and awareness of non-standard language. Capstone Project for the University of Washington Graduate Certificate in Second and Foreign Language Teaching." *French and Italian Studies Graduate Student Colloquium*, University of Washington, Seattle, WA
- 2016 | "Discourse and acoustic patterns in *um* and *uh* in spontaneous speech and the effect of Stance" *Linguistic Graduate Student Colloquium*, University of Washington, Seattle, WA
- 2015 | "Investigating and Testing Weight-sensitive Stress in Marathi" *Guest lecture, Linguistics Phonology II*, University of Washington, Seattle, WA
- 2014 | "Linear Mixed Effect Models" *University of Washington Phonetics Lab Meeting*, Seattle, WA
- 2013 | "Pitch Resynthesis" *University of Washington Phonetics Lab Meeting*, Seattle, WA
- 2013 | "Corpus interoperability and spoken diachronic databases: the NECTE-DECTE corpora" *Université Paris Diderot*, Paris, France
- 2013 | "Dialects of French and English, emphasis on Breton and Indian English" *Guest lecture, Introduction to Phonetics*, University of Washington, Seattle, WA
- 2012 | "What is Phon?" *University of Washington Phonetics Lab Meeting*, Seattle, WA
- 2012 | "Interface between POS tagging, semantic categorization and the prosodic features of the marker 'so': a multilevel study" *CLILLAC-ARP laboratory Poster Session*, Paris, France

STAND-ALONE TEACHING - UNIVERSITY OF WASHINGTON

Summer 2016	Instructor for <i>Language and Diversity</i> Focus on language and identity, multilingualism, language contact.
Summer 2016	Instructor for <i>French 201</i> Second year French course.
Winter 2016	Instructor for <i>French 201</i> Second year French course.
Summer 2015	Instructor for <i>French 134</i> First year summer intensive course.
Spring 2015	Instructor for <i>French 103</i> First year French course.
Winter 2015	Instructor for <i>French 102</i> First year French course.
Summer 2014	Instructor for <i>Introduction to Linguistic Thought</i> large introductory linguistics course.
Summer 2014	Instructor for <i>French 134</i> First year summer intensive course.
Spring 2014	Instructor for <i>French 103</i> First year French course.
Winter 2014	Instructor for <i>French 102</i> First year French course.
Summer 2013	Instructor for <i>French 134</i> First year summer intensive course.
Spring 2013	Instructor for <i>French 102</i> First year French course.
Winter 2013	Instructor for <i>French 101</i> First year French course.
Fall 2012	Instructor for <i>French 101</i> First year French course.

ASSISTANTSHIPS

Spring 2016	Teaching Assistant for <i>Language and Diversity</i> Focus on language and identity, multilingualism, language contact. Responsibilities: leading one lecture, lesson planning, developing materials, teaching and grading.
Fall 2015	Teaching Assistant for <i>Introduction to Linguistic Thought</i> Large introductory linguistics course. Responsibilities: lesson planning, developing materials, teaching and grading.
Fall 2013-14	Teaching Assistant for <i>Introduction to Linguistic Phonetics</i> Articulatory and acoustic correlates of phonological features. Responsibilities: leading one lecture, lesson planning, developing materials, teaching and grading.
2008-2009	Teaching Assistant at <i>The Bush School, Seattle, WA</i> Year long internship as a French Teaching Assistant. Responsibilities: in charge of French as a first language for distance learning with two students from Lebanon, planning and leading of conversation session, developing materials, teaching and grading.

PROFESSIONAL SERVICE AND COMMUNITY OUTREACH

- 2015-16 Social Chair: *32nd Northwest Linguistics Conference*, University of Washington
Role: Organized a Linguistic Trivia Event for the Student Mixer event.
- 2015 Exhibit Volunteer: *Paws on Science*, Seattle Pacific Science Center, WA
- 2015 Workshop Instructor: *Software Carpentry*,
Introduction to R and the Unix shell, University of Washington
- 2015 Workshop Helper: *Introduction to Python*, University of Washington
- 2014-15 Social Chair: *Linguistic Society at the University of Washington*
- 2013 Workshop Instructor: *French Teaching Orientation*, University of Washington
- 2013-14 Treasurer: *Linguistic Society at the University of Washington*
- 2012-14 Senator: *Graduate and Professional Student Senate*, University of Washington

PROFESSIONAL MEMBERSHIPS

The Linguistics Society of America
The Acoustical Society of America