

Jake Vasilakes

jvasilakes@gmail.com (763) 784-5318 • jvasilakes.github.io github.com/jvasilakes

Experience

Feb - | **Research Assistant in Speech Processing (IARPA Babel project)**
Nov 2016 **University of Cambridge - Cambridge, UK**

- Built state of the art machine learning systems for efficient automatic speech recognition on large quantities of audio data.
- Implemented pipelines for building statistical language models in Python and shell.
- Performed statistical analysis with R to develop methods for predicting final system performance from properties of the training data.
- Supervised an undergraduate student's research project, resulting in a conference paper submission.
- Maintained the project's set of software tools in shell, Python, and C.

Sept - | **Algorithm Development Intern**
Nov 2015 **ICAN Future Star Ltd - Edinburgh, UK**

- Designed a machine learning system utilizing clustering and regression algorithms for matching students to universities and assisting them with the application process.
- Assisted in writing an ultimately successful grant for funding.

Education

Aug 2015 | **MSc Speech and Language Processing (Distinction)**
University of Edinburgh

Thesis: *Automatic Generation of Wide-scale Semantic Representations in NLTK* Advisor: Ewan Klein
Coursework

- | | |
|---|---|
| • Advanced Natural Language Processing | • Natural Language Understanding |
| • Topics in Natural Language Processing | • Introductory Applied Machine Learning |
| • Speech Processing | • Automatic Speech Recognition |
| • Statistics and Methodology using R | • Machine Translation |
| • Automated Reasoning | • Semantic Web Systems |

June 2013 | **B.A. Philosophy (Honors)**
Loyola University of Chicago

GPA: 3.84/4.00

Thesis: *The World of Speech*

Honors and Awards: Outstanding Philosophy Senior Award 2013, 2nd place Ancient Greek Translation Contest 2012, Member - Eta Sigma Phi Classical studies honor society

Skills

Programming Languages: Python, R, C, shell (`bash` & `tcsh`), regex

Software and Libraries: HTK, NLTK, NumPy, OpenFST, TensorFlow, WEKA, Git

Operating Systems: Linux, OS X, Windows XP-8

Natural Languages: English (native), Italian (conversational)

Presentations

Vasilakes, J.A., Wang, H., Ragni, A., Gales, M.J.F. & Knill, K.M. (2016, June). *Speech Recognition and Keyword Spotting Performance Analysis Across Languages*. Poster presented at UK Speech Conference, Sheffield, UK