

Jake Vasilakes

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Experience

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

- Building state of the art speech recognition and keywords spotting systems for 8+ languages using HTK.
- Conducting experiments to improve system performance, clearly reporting to team members the reasoning behind performance gains.
- Maintaining the project's set of software tools in shell, Python, and C.
- Performing statistical analysis with R to develop methods for predicting the overall performance of a given speech recognition system from properties of the training data.
- Implemented pipelines for building language models from web and morphologically decomposed text data using Python and shell.

Sept - Nov 2015 | **Algorithm Development Intern**
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

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| • 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, shell (bash & tcsh), R, C, regex

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

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

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