Jake Vasilakes

jvasilakes@gmail.com   +44 7572356508   •   jvasilakes.github.io   github.com/jvasilakes

Experience

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

- Building state of the art machine learning systems for efficient automatic speech recognition on large quantities of audio data.
- 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.
- 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.
- Extending research software and implementing new software pipelines for pursuing new research directions.

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

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

Data science: Supervised and unsupervised learning, neural networks, natural language processing, statistical analysis.
Programming Languages: Python, shell (`bash` & `tcsh`), R, C, regex
Software and Libraries: NumPy, NLTK, OpenFST, HTK, 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