Jake Vasilakes

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Experience

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

- Trained and evaluated state of the art machine learning systems for automatic speech recognition on multiple datasets each containing over 80 hours of audio data.
- Performed statistical analysis with R using regression, significance testing, and visualization to develop a method of accurately predicting final system performance on unseen data. Presented findings at an academic conference.
- Designed and implemented pipelines for building statistical language models using Python and shell.
- Supervised an undergraduate student's research project on optimizing a search graph, which resulted in a conference paper.
- Maintained the project's set of software tools in shell, Python, and C.

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

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

Education

Aug 2015 | **University of Edinburgh**

M.S. Speech and Language Processing, *Distinction*

June 2013 | **Loyola University of Chicago**

B.A. Philosophy with Honors, *Magna Cum Laude*

Skills

Data Science: Statistical analysis, machine learning, feature extraction, natural language processing.
Programming Languages: Python, R, C, shell (`bash` & `tcsh`), regex
Software and Libraries: NumPy, SciPy, NLTK, Weka, OpenFST, TensorFlow, Jupyter, Git
Operating Systems: Linux/Unix, OS X, Windows

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