Jake Vasilakes

Place and Date of Birth: U.S.A. July 23, 1991
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Interests: Natural Language Understanding esp. semantic parsing, computational semantics (formal and distributional), QA systems, machine translation, ontologies, automatic speech recognition.

Education

August 2015 | **MSc Speech and Language Processing** **University of Edinburgh**

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

Exams and marks:

- Advanced Natural Language Processing 77
- Speech Processing 78
- Statistics and Methodology using R 58
- Natural Language Understanding 80
- Automated Reasoning 70
- Topics in Natural Language Processing 79
- Introductory Applied Machine Learning 73
- Phonology & Phonetics 71
- Automatic Speech Recognition 77
- Machine Translation 70
- Semantic Web Systems 83

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

GPA: 3.84/4.00 (Equivalent to UK first)
Minors: Classics, Italian
Thesis: *The World of Speech* Advisor: Hanne Jacobs
Honors and Awards: Outstanding Philosophy Senior Award 2013, 2^{nd} place Ancient Greek Translation Contest 2012, Member - Eta Sigma Phi Classical studies honor society

Work Experience

Aug 2013 - July 2014 | **Computer Technician** **PRO Computers - Chicago, IL**
Software and hardware troubleshooting and service across a variety of platforms

- Performed hardware repair (including motherboard-level) and solved software issues on PC, Mac, and Linux platforms, customer support.
- Implemented Linux-based data recovery methods that increased both the number of data recovery jobs possible in-shop and the speech at which they could be completed.

Skills

Programming Languages

Python: Very good knowledge. Python 2 & 3, PEP 8 coding standards, unit-testing, numpy.
C/C++: General knowledge (core aspects of the languages).
R: General knowledge (core aspects of the language, applications to machine learning).
Haskell: Some knowledge.
Regular Expressions: Good knowledge (Regex in Python, sed, awk, grep).
Bash shell scripting: Good knowledge.

Operating Systems: Linux/UNIX (including OS X), Windows XP - 8.
Software: NLTK, HTK, WEKA, Festival TTS software, Praat, Wavesurfer, Audacity, MS Office suite.
Version Control: Git.
Web technologies: HTML, CSS, XML (utilisation with Python), CGI (Python).
Ontologies: RDF, OWL, SPARQL.

Concepts

Natural Language Processing and Speech Technology:

- Language modelling (n-grams, neural networks).
- Syntactic parsing (constituent, dependency, CCG).
- Computational semantics (semantic parsing, formal and distributional semantics).
- Statistical machine translation (alignment models, decoding).
- Automatic speech recognition (HMM/{GMM, DNN} systems)

Machine Learning and Statistical Modelling:

- Generative and discriminative modelling.
- Supervised and unsupervised methods.
- Dimensionality reduction, feature selection.

Languages

English (native), Italian (conversational), some knowledge of German and Spanish, also 4 years study of Ancient Greek.