

# Jake Vasilakes

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Place and Date of Birth: U.S.A. July 23, 1991  
Address: Chancellors Court LG012R4, EH16 5AY Edinburgh, UK  
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**Interests:** Natural Language Understanding esp. semantic parsing, computational (formal and distributional) semantics, QA systems, natural language generation, ontologies, automatic speech recognition.

## Education

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**Expected August 2014** | **MSc Speech and Language Processing** **University of Edinburgh**

**Exams:**

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

**Thesis:** Adding a semantic parser to the Python NLTK library. *Advisor:* Ewan Klein

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

**GPA:** 3.84/4.00

**Minors:** Classics, Italian

**Thesis:** “The World of Speech”. *Advisor:* Hanne Jacobs

**Honors and Awards:** Outstanding Philosophy Senior Award 2013, 2<sup>nd</sup> place Ancient Greek Translation Contest 2012

## Work Experience

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**Aug 2013 - July 2014** | **Computer Technician** **PRO Computers - Chicago, IL**

*Software and hardware troubleshooting and service across a variety of platforms*

Hardware repair (including motherboard-level), software and OS issues on Windows, OS X, and Linux, data recovery, and user support.

# Informatics Skills

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## Programming Languages

**Python:** Very good knowledge. Python 2 & 3, PEP 8 coding standards, unit-testing, scientific computing with numpy.

**C/C++:** General knowledge (core aspects of the language).

**R:** General knowledge (core aspects of the language, applications to machine learning).

**Regular Expressions:** Good knowledge (Regex in Python, sed, grep).

**Bash shell scripting:** Good knowledge.

## Natural Language Processing:

- Machine learning (Discriminative and Bayesian modelling).
- Constituent and dependency parsing.
- Alignment models for machine translation.
- Language modelling (n-grams, neural networks).
- Automatic Speech Recognition (Hidden Markov Model framework), text-to-speech.
- Computational semantics (distributional semantics, semantic parsing).

**Ontologies:** RDF, OWL, SPARQL.

**Web technologies:** HTML, CSS, XML (utilisation with Python), CGI (Python).

**Software:** HTK, Festival speech synthesis software, Praat, Wavesurfer, WEKA.

**Operating Systems:** Linux (Debian, Ubuntu, Arch Linux), OS X, Windows XP - 8.

## Languages

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