

## about

Cambridge, MA  
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## programming

Python, Django, Flask  
JavaScript, jQuery  
R, Perl, Matlab/Octave  
SQL, git

## languages

native English  
advanced French  
Mandarin  
intermediate Arabic  
elementary Japanese  
Hungarian

## awards

National Science Foundation  
2011 NSF Graduate  
Research Fellowship  
Cornell University  
2004 Merrill Scholar  
2001 College Scholar  
2000 Dean's Scholar  
2002,2004 Achievement  
Awards in Arabic  
2000–2004 Dean's List  
Government of Singapore  
2000 PSC Overseas  
Merit Scholarship

## summary

Graduate student in linguistics with a background in speech and language processing and web development in Python

## education

- since 2010 **Ph.D. program in Linguistics, Massachusetts Institute of Technology**  
Research on problems in computational morphology and formal phonology  
Coursework in linguistics, machine learning and Bayesian techniques  
Teaching assistant in introductory linguistics and phonology
- 2000–2004 **B.A. Cornell University, Linguistics and Mathematics**  
Graduated *magna cum laude* and with distinction in all subjects, 4.0 GPA  
Study abroad, Fall 2003: Budapest Semesters in Mathematics

## experience

- 2008–2010 **Web Developer, Imperial Consulting** Boston, MA  
Developed web applications, both front and back end, in Python, Django and jQuery, for clients in fields ranging from education to biomedical to finance
- 2008–2009 **External Consultant, Centre for Strategic Infocomm Technologies**  
Advised client on evaluation procedures in speech and natural language processing
- 2004–2008 **R&D Engineer, later Consultant, Centre for Strategic Infocomm Technologies** Singapore  
Researched techniques and built engines for speech recognition, language and speaker identification, and cross-language information retrieval  
Managed projects to evaluate and acquire systems
- 2004 **Summer Intern, PARC** Palo Alto, CA  
Engineered a computational Lexical Functional Grammar to cover the basic sentence constructions of Modern Standard Arabic  
Built a root-and-pattern-based finite state Arabic morphological analyzer

## projects

- since 2012 **Bayesian inference of non-concatenative morphology**  
Extending state-of-the-art Bayesian techniques for morphological learning to the more complex case of non-concatenative morphology (Arabic, Hebrew)  
Wrote a Markov Chain Monte Carlo (MCMC) sampler in Python to perform inference on a Bayesian generative model of non-concatenative morphology
- 2014 **Fuzzy Arabic Dictionary** fuzzyarabic.herokuapp.com  
Developed a beginner-friendly Arabic dictionary that can be queried without knowing how to spell in Arabic, mashing up the Yamli transliteration service and the free Buckwalter Arabic Morphological Analyzer
- since 2013 **Volunteer tutor, PyLadies Boston**  
Deliver presentations on beginner and intermediate Python topics and tutor women who are learning to program in Python