Michelle Fullwood

about

Quincy, MA
maf@mit.edu
(716) 241-1888
michelleful.github.io
github.com/michelleful

programming

Python, Django, Flask
SpaCy, gensim,
PyTorch, Spark
JavaScript, VueJS,
jQuery
SQL, git

languages

native English
advanced French
Mandarin
intermediate Arabic
Japanese
elementary Hungarian
Hieroglyphic Egyptian

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

community involvement

Co-organizer
Boston Python
Speaker
PyCon 2015, 2017
PyData NYC 2014
Boston Python
PyLadies Boston

education

2010–2018 — **Ph.D. program in Linguistics, Massachusetts Institute of Technology**
· Computational & experimental research on acquisition of Arabic morphology
· Dissertation: *Biases in Segmenting Non-concatenative Morphology*
· Coursework in linguistics, statistics, and machine learning
· Teaching assistant in introductory linguistics and phonology

2000–2004 — **B.A. in Linguistics and Mathematics, Cornell University**
· Graduated *magna cum laude* and with distinction in all subjects, 4.0 GPA
· Study abroad, Fall 2003: Budapest Semesters in Mathematics

ongoing — **MOOCs from edX, Coursera, FutureLearn, etc.**

experience

2017–now — **Natural Language Processing Scientist, Spirit AI**   Remote
· Build pipeline of preprocessors and classifiers for detecting toxicity in text
· Research and implement NLU algorithms for chatbot–like product
· Build in-house tools for annotating and managing data

2015–2017 — **Consultant, Vista Higher Learning**   Boston, MA
· Advised client on architectural design and data collection for Spanish and French speech recognizers for second language learners
· Analyzed data to better understand corpus characteristics and recognizer performance

2008–2010 — **Web Developer, Imperial Consulting**   Boston, MA
· Developed custom web applications, front and back end, in Python, Django and jQuery, for clients in education, biomedical and finance industries

2008–2009 — **External Consultant, Centre for Strategic Infocomm Technologies**
· Advised client on evaluation procedures in speech and text 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

2015 — **Linguistic streetmap of Singapore** github://michelleful/SingaporeRoadnameOrigins
· Used machine learning (scikit-learn) and mapping technologies to create a visualization of linguistic origins of Singapore streetnames

2014 — **Fuzzy Arabic Dictionary**   fuzzyarabic.herokuapp.com
· Developed a novel Arabic learners' dictionary that can be queried via non-exact transliteration, used by ~600 learners a week