Derek M. Reedy

About

I am deeply interested in solving problems in natural language and artificial intelligence, both academic and practical. I like thinking about abstractions and their role in understanding and cognition. I want to contribute to bridging the communication gap that exists between the field of A.I. and its popular understanding.

Experience

Software Developer
Jan 2013 to present

IBM Watson *Littleton, MA*

- Designed and implemented continuous integration and deployment infrastructure for the Conversation and Natural Language Classifier Watson Cloud Services, coordinating across four development teams.
- Developed a noisy-channel spellchecker service, including a testing and accuracy evaluation framework based on an automatically-generated corpus of Wikipedia edits.
- Evaluated and enhanced a range of NLP technology leveraged across a multi-lingual question-answering pipeline, including dependency and constituency parsers, semantic structure processors, named entity recognizers, open entity extractors, document search engines, natural language similarity and alignment scorers, and a variety of machine learning algorithms.
- Developed testing automation and evaluation tooling for the Watson deep question-answering system.
- Trained technical and non-technical peers on the fundamentals of NLP, the Jeopardy! Watson system, and artificial intelligence.
- Lead an office-wide weekly colloquium series surveying the state of the art in artificial intelligence, machine learning, and distributed systems.

Teaching Assistant
Sept 2011 to Aug 2012

Tufts University Computer Science Department *Medford, MA*

- Designed and taught lectures on code quality, craftsmanship, expressiveness, and abstraction, in software design and development.
- Taught labs and held office hours for introductory-level courses on data structures and algorithms, and advanced-level courses on programming languages.

Research Assistant
June 2011 to Aug 2011

Tufts University Human-Robotic Interaction Lab *Medford, MA*

- Implemented robot control scripts for a project on encouraging ethical behavior in interactions with artificial agents.
- Designed and implemented a system for rule-based agents to perform efficiently-defeasible abduction across a knowledge base, with an emphasis on determining intent in natural language utterances.

Skills

Languages:	C++, Groovy, **Java**, JavaScript, LISP, Prolog, **Python**, SML
Technologies:	Ansible, Cucumber, **Docker**, D3.js, Git, **Jenkins**, Kubernetes, Lucene/Solr, Mesos/Marathon, Pandas, **UIMA**
Miscellany:	Illustrator, LaTeX, Photoshop

Education

B.S. Computer Science and Cognitive and Brain Science
2008 to 2012

Tufts University *Medford, MA*

Coursework emphasizing **artificial intelligence**, **linguistics**, **logic**, machine learning, **natural language processing**, neuroscience, philology, **philosophy of language**, **programming languages**, and theory of mind.