Eric D. Scott

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Work History

Senior Software Engineer, Olive (www.oliveai.com) October 2020 - October 2022

- Contributed to design of an RDF-based graph knowledge base with supporting ontology.
- Wrote code (in Clojure) to provide custom functionality in SPARQL queries.
- Built tooling to ingest data into an RDF-based graph infrastructure.
- Contributed to development of a Python SDK for ingesting data into an RDF store.

Maintainer, The Ont-App libraries (github.com/ont-app). Jun 2018 - present

- Developing a set of open-source libraries in Clojure/ClojureScript dedicated to ontology-driven development. This library defines Clojure protocols to introduce graphs as a fundamental primitive, with other modules to adapt various data formats to these protocols, aligning with RDF where appropriate. Supported formats include SPARQL Endpoints, Jena, Datascript, and Datomic.

Natural Language Engineer, Ntent Inc. Jan 2014 - May 2018

- Developed tools (largely in Python) to import from external sources into a proprietary graph-based Knowledge Resource (KR).
- Developed an RDF ontological translation of said KR, with tools to perform the translation.
- Developed a prototype for a question answering application targeting said KR and assisted in implementing it in production.
- Researched RDF representations of linguistic data contained in said KR, integrated with Linguistic Linked Open Data ontologies.
- Maintained RDF stores and content to support the work described above (mostly Blazegraph and Jena).

Independent Consultant Mar 2010 - Dec 2013

- Consulted with a team of R & D researchers at LexisNexis on a project to apply Machine Learning (ML) to a legal taxonomy of tens of thousands of categories.
  - Built a prototype in clojure implementing Active Learning (AL) in support of said ML project, demonstrating value of the approach to decision makers within the company.
- Started on work importing Linked Open Data into Ntent, Inc's proprietary ontology.

Senior Research Scientist / NLP Overtone, Inc. Jul 2000 - Feb 2010

- Researched and developed prototypes for a text classification system with supporting workflow, which became the basis for a new business model for the company as it turned away from automated technical support in favor of text analytics of customer feedback.
- Co-developed a dynamic 'early warning' system which monitored an input stream of text and automatically identified newly emerging topics.
- Developed a tool to allow users to explore the content of large amounts of customer feedback matching a given category by recursively clustering content within a corpus of such feedback.
- Developed a tool for identifying possible 'influencers' posting to social media.

- Developed an Active Learning system to more quickly train text classifiers.
- Developed a Task Analysis regime to systematically analyze the logical flow of user interfaces.
- More generally, the work involved developing prototypes in C#/.NET, Common Lisp, or Perl, validating their performance, documenting them and working with a team of production engineers who adapted the prototypes into the existing product offering.

Research Programmer for Dr. Sandra Marshall, Prof of Psychology at SDSU 1995-2000

- Developed cognitive models in the ACT-R cognitive modeling architecture .
- Did exploratory programming (in Common Lisp) modeling the behavior of actual subjects recorded using a user interface with eye tracking equipment.
- periodically reported progress to an annual conference dedicated to cognitive modeling.

Education

- M.S. Computer Science, San Diego State University 1998
- B.A. Linguistics and Oriental Languages, University of California, Los Angeles 1983

Skills

Primary Platforms:	Clojure, Python, RDF, SPARQL
Secondary Platforms:	Docker, Kubernetes, Gitlab CI, SQL, Java
Primary Technical Domains:	Knowledge Representation, Semantic Technologies, Knowledge Graphs, NLP/Computational Linguistics, Task Analysis
Secondary Technical Domains:	Machine Learning, Cognitive Modeling
Language:	Native speaker of English with excellent writing skills. Conversant in Mandarin Chinese.

Patent Authorship

- Systems and methods for automatically categorizing unstructured text. US Patent No.7,853,544
- Method for identifying emerging issues from textual customer feedback. US Patent No. 7,899,769