Software Engineering, Testing, and Quality Assurance for Natural Language Processing (SETQA-NLP 2009)

Proceedings of the Workshop

June 5, 2009 Boulder, Colorado Production and Manufacturing by Omnipress Inc. 2600 Anderson Street Madison, WI 53707 USA

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ISBN 978-1-932432-32-9

Introduction

Software engineering is a first-class research topic in computer science, but generally has not been treated as such within the natural language processing community. However, the need for well-engineered NLP components is increasing as NLP begins to show up outside our research community: bioinformatics, the search industry, education applications, etc. In addition, NLP research itself, e.g., when it involves large data sets, often requires a high level of software quality. Simply applying standard software engineering practices to NLP often fails due to the unique characteristics of natural language as an input type.

The goals of this workshop include raising awareness of the need for good software engineering practices in NLP, stimulating research on same, and providing a forum for sharing current work in this area. We are grateful to the authors for sharing their work, our invited speaker, and to the program committee for their efforts.

Kevin Bretonnel Cohen and Marc Light

Organizers:

Kevin Bretonnel Cohen, Center for Computational Pharmacology, University of Colorado School of Medicine and The MITRE Corporation

Marc Light, Thomson Reuters

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Invited Speaker:

Ted Pedersen, University of Minnesota Duluth

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Conference Program

Friday, June 5, 2009

- 9:00–9:30 *Building Test Suites for UIMA Components* Philip Ogren and Steven Bethard
- 9:30–10:00 *Context-Dependent Regression Testing for Natural Language Processing* Elaine Farrow and Myroslava O. Dzikovska
- 10:00–10:30 Using Paraphrases of Deep Semantic Representions to Support Regression Testing in Spoken Dialogue Systems Beth Ann Hockey and Manny Rayner
- 10:30–11:00 Morning Break
- 11:00–11:30 Integrated NLP Evaluation System for Pluggable Evaluation Metrics with Extensive Interoperable Toolkit Yoshinobu Kano, Luke McCrohon, Sophia Ananiadou and Jun'ichi Tsujii
- 11:30–12:00 Tightly Packed Tries: How to Fit Large Models into Memory, and Make them Load Fast, Too
 Ulrich Germann, Eric Joanis and Samuel Larkin
- 12:00–12:30 Poster Session

Scaling up a NLU system from text to dialogue understanding Rodolfo Delmonte, Antonella Bristot, Gloria Voltolina and Vincenzo Pallotta

Towards Agile and Test-Driven Development in NLP Applications Jana Sukkarieh and Jyoti Kamal

Grammar Engineering for CCG using Ant and XSLT Scott Martin, Rajakrishnan Rajkumar and Michael White

- 12:30–2:00 Lunch Break
- 2:00–3:00 Invited Talk by Ted Pedersen: The road from good software engineering to good science ... is a two way street
- 3:00–3:30 *Web Service Integration for Next Generation Localisation* David Lewis, Stephen Curran, Kevin Feeney, Zohar Etzioni, John Keeney, Andy Way and Reinhard Schäler

Friday, June 5, 2009 (continued)

- 3:30–4:00 Afternoon Break
- 4:00–4:30 *Distributed Parse Mining* Scott Waterman
- 4:30–5:00 *Modular resource development and diagnostic evaluation framework for fast NLP system improvement* Gaël de Chalendar and Damien Nouvel
- 5:00–5:30 Integrating High Precision Rules with Statistical Sequence Classifiers for Accuracy and Speed Wenhui Liao, Marc Light and Sriharsha Veeramachaneni