Curriculum Vitae
Ruben Sipos

Mailing Address:
349 Gates Hall
Cornell University
Ithaca, NY 14853 USA

Mobile Phone: +1 607-229-0872
Date of Birth: 8 October 1985
E-mail: rs@cs.cornell.edu
Web: http://www.cs.cornell.edu/~rs/

RESEARCH INTERESTS

Machine Learning, Information Retrieval and Ranking, Summarization,
User Generated Content and Voting Behavior, Natural Language Processing

EDUCATION

PhD in Computer Science   2009 ~ 2014
  Cornell University
  Department of Computer Science
  Advisor: Thorsten Joachims
  Graduate Minor: Cognitive Science
  Committee: Thorsten Joachims, Noah Snavely, Claire Cardie

B.Sc. in Computer Science and Mathematics   2004 ~ 2009
  University of Ljubljana
  Joint program by Faculty of Computer and Information Science
    and Faculty of Mathematics and Physics
  Thesis: Modeling Words Co-occurrence using Machine Learning
  Advisors: Janez Demšar, Dunja Mladenić
  GPA: 9.8/10

Anton Martin Slomšek Diocesan High School   2000 ~ 2004
  graduated with perfect score, one of top 21 nationwide

RESEARCH & WORK EXPERIENCE

Siemens Corporation   Summer 2012
Corporate Research and Technology
Position: Intern
Supervisors: Zhuang Wang, Dmitriy Fradkin, Fabian Moerchen
Worked on:
- Predicting medical device component failures based on logged data
- Exploratory data analysis on large datasets
- Developing data mining algorithms and
  implementing them in Matlab and Hadoop

Jozef Stefan Institute   2008 ~ 2009
Artificial Intelligence Laboratory
Position: Researcher
Supervisors: Marko Grobelnik, Dunja Mladenić
Worked on:
- Visualizing social networks and events extracted from Wikipedia
- Extracting ontological knowledge from Google n-grams

Anton Martin Slomšek Diocesan Grammar School   2001 ~ 2004
Position: System Administrator
Worked on:
- New comprehensive IT solution (software, servers and networking)
- System and network administration

TEACHING EXPERIENCE at Cornell University

Teaching assistant for CS 4701: Foundations of Artificial Intelligence   Fall 2009
Instructor: Hod Lipson
In charge of supervising student project groups; including helping with project ideas, giving constructive feedback on the progress, advising on how to solve problems and grading.

Teaching assistant for CS 3220: Introduction to Scientific Computing   Spring 2010
Instructor: Steve Marschner
In charge of tutorial sections; including preparation of teaching material, demos and assignments, leading the sections and grading.

PUBLICATIONS

- R. Sipos, A. Ghosh, T. Joachims. *Using User Behavior: Content Ranking Algorithms with Contextual Votes.* (manuscript)
- R. Sipos, D. Fradkin, F. Moerchen, Z. Wang. *Log-based Predictive Maintenance.* (under submission)
- R. Sipos, A. Ghosh, T. Joachims. *Was This Review Helpful to You? It Depends! Context and Voting Patterns in Online Content.* International World Wide Web Conference (WWW), 2014.
- R. Sipos, T. Joachims. *Generating Comparative Summaries from Reviews*. Conference on Information and Knowledge Management (CIKM), 2013.
- R. Sipos, A. Swaminathan, P. Shivaswamy, T. Joachims. *Temporal Corpus Summarization Using Submodular Word Coverage*. Conference on Information and Knowledge Management (CIKM), 2012.
- R. Sipos, P. Shivaswamy, T. Joachims, *Large-Margin Learning of Submodular Summarization Models.* Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2012.
- R. Sipos, D. Mladenic, M. Grobelnik, J. Brank. *Modeling Common Real-Word Relations Using Triples Extracted from n-Grams.* Asian Conference on The Semantic Web (ASWC), 2009.
- R. Sipos, A. Bhole, B. Fortuna, M. Grobelnik, D. Mladenic. *Demo: HistoryViz – Visualizing events and relations extracted from Wikipedia.* European Semantic Web Conference (ESWC), 2009.
- D. Rusu, B. Fortuna, D. Mladenic, M. Grobelnik, R. Sipos. *Document Visualization Based on Semantic Graphs.* International Conference Information Visualisation (IV), 2009.
- D. Rusu, B. Fortuna, D. Mladenic, M. Grobelnik, R. Sipos. *Visual analysis of documents with semantic graphs.* ACM SIGKDD Workshop on Visual Analytics and Knowledge Discovery: Integrating Automated Analysis with Interactive Exploration (VAKD), 2009.

PEER-REVIEWING for conferences

- CIKM 2013 (PC Member)
- CIKM 2012
- ICML 2012
- SIGIR 2012

AWARDS AND HONORS

- 3rd place in UC San Diego Data Mining Contest 2008
  Task: binary classification on real-world data
  Mentor: Blaž Zupan, University of Ljubljana
- 4th place (12-member team) in Data Mining Competition 2008
  Competition organized by: University of Central Florida
- Top places in *national* computer science competitions, thus qualifying for:
  - ACM-ICPC Central Europe (2005, 2006, 2007)
  - International Olympiad in Informatics (2001, 2002, 2004)
  - Central European Olympiad in Informatics (2001)
- Top places (gold award) in *national* high school Logic (3 times),
  Mathematics (2 times) and Chemistry (2 times) competitions
- Zois scholarship for gifted students (2000-2009)
  Awarded to top 3% *nationwide*. Selection based on tests of intellectual abilities.

REPRESENTATIVE GRADUATE-LEVEL COURSEWORK

Advanced Topics in Machine Learning Analysis of Algorithms
The Structure of Information Networks Database Systems
Probabilistic Graphical Models Seminar in Artificial Intelligence
Advanced Language Technologies Topics in High Level Vision

COMPUTER SKILLS

- C/C++, C#, Python, Java, Assembly
- Web development, PHP, SQL
- Matlab, Hadoop, LibLinear, SVM^{struct}
- Game and rendering engines (OpenGL, DirectX)
- Interfacing external hardware (e.g. ADCs)
- Microsoft Windows, Linux
  (ranging from system administration to writing kernel-level drivers)

LANGUAGES

- Fluent: Slovenian, English
- Advanced: German, Croatian and Serbian
- Intermediate: Japanese

EXTRACURRICULAR ACTIVITIES

- Machine Learning Discussion Group organizer at Cornell University (2010-2014)
- Participation in the Cognitive Science Film Series at Cornell discussion group
- Camp Counselors USA 2006 (was part of the staff in a children's summer camp)
- Part of the team organizing Slovenian national computer science competitions
- Obtained Reader's Award every year in elementary and high school; still reading a lot even nowadays
- Leader of youth groups at different local events (completed a few basic leadership courses)