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| **Ben Hachey – Curriculum Vitae** | | | (Last updated: 15 August 2013) | |
| t: +1 612 913 0057  e: ben.hachey [at] gmail.com | | Research & Development, Thomson Reuters  610 Opperman Drive, St Paul, MN 55123 | | |
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| Employment | | | | |
|  | **December 2011 – Present** | | | **Thomson Reuters** |
|  | Snr Research Scientist, Research & Development | | | |
|  | **Role:** Initiate/lead R&D in large-scale language technology for professional content.  **Software:** Tools for mining taxonomies of risk terms, identifying extended entity types in legal text, linking entities across content, maintaining entity authorities. | | | |
|  | **Other:** Consult on, e.g., linked data, Wikipedia, NER in queries, biography generation, patent summarisation, data science and evaluation. Manage machine-learning intern. | | | |
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|  | **October 2008 – October 2011** | | | **Macquarie University** |
|  | Research Fellow, Centre for Language Technology | | | |
|  | **Role:** R&D in language technology for financial analytics and news curation.  **Software:** Tera-scale text mining tools for fraud detection, algorithmic decision-making, and automated news curation. | | | |
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|  | **November 2002 – September 2004** | | | **University of Edinburgh** |
|  | Research Associate, Institute for Communicating and Collaborative Systems | | | |
|  | **Role:** Drove research agenda on several information extraction and summarisation projects.  **Software:** State-of-the-art active learning tools for information extraction (optioned to Cognia Corporation). | | | |
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|  | **June 2001 – August 2001** | | | **BCL Technologies** |
|  | Programmer Intern, Spoken Language User Interface Toolkit | | | |
|  | **Software:** Designed and implemented C++ text normalisation code. | | | |
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| Education | | | | |
|  | **January 2009** | | | **University of Edinburgh** |
|  | PhD, Informatics (supervisor: Claire Grover) | | | |
|  | **Thesis:** Towards Generic Relation Extraction | | | |
|  | *\*\*\*Edinburgh-Stanford Link PhD Studentship\*\*\** | | | |
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|  | **Autumn 2002** | | | **University of Edinburgh** |
|  | MSc, Speech and Language Processing (supervisor: Mirella Lapata) | | | |
|  | **Thesis:** Recognising Clauses Using Symbolic and Machine Learning Approaches | | | |
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|  | **Spring 2001** | | | **University of Minnesota** |
|  | B.A., Computer Science and Linguistics (Spanish minor) | | | |
|  | Double major with coursework emphasis on Computational Linguistics, Syntax and AI. | | | |
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| Supervision | | | | |
|  | **PhD:** Joel Nothman, (PhD, CS, associate); Will Radford (PhD, CS, associate) | | | |
|  | **MSc:** Tamsin Maxwell (2007, Natural Language Engineering, distinction, co-supervisor) | | | |
|  | **Honours:** Ka Shing Law (2010, CS, co-supervisor); Gareth Robinson (2010, CS, co-supervisor); Will Radford (2009, CS, first class, co-supervisor) | | | |
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| Teaching | | | | |
|  | **Lecturer:** *Statistical Natural Language Processing* (2011, Honours/Masters, U of Sydney) | | | |
|  | **Guest Lecturer:** *Statistical Natural Language Processing* (2010, Honours/Masters, U of Sydney) | | | |
|  | **Teaching Assistant:** *XML Document Management* (2005, 2006, 2007, Masters, U of Edinburgh, with Henry Thompson); *Processing Natural and Formal Languages* (2005, 2006, Ugrad, U of Edinburgh, with Bonnie Webber); *Introduction to Computational Linguistics* (2003, Masters, U of Edinburgh, with Ewan Klein); *Introduction to Syntax* (2001, Ugrad, U of Minnesota, with Hooi Ling Soh) | | | |
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| Research Interests | | | | |
|  | Web-scale text mining; Information extraction/aggregation; Automatic summarisation; Computational linguistics and social media; Un/semi-supervised learning for NLP | | | |
| Funding | | | | |
|  | Computable News (2010-2011, Fairfax/CMCRC, author & project lead) | | | |
|  | EASIE (2004-2007, Edinburgh-Stanford Link, named student) | | | |
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| Service | | | | |
|  | **Organisation:** NAACL Workshop on Computational Linguistics in a World of Social Media (2010); Workshop on Text Mining for Biology and Medicine (2008). | | | |
|  | **Journal Reviewing:** Journal of Artificial Intelligence Research; Language Resources and Evaluation; Information Fusion; Information Processing and Management; Artificial Intelligence and Law; Natural Language Engineering. | | | |
|  | **Conference PCs:** EMNLP (2013, 2011, \*\*\**Best reviewer award 2010\*\*\**); ACL (2013, 2011); ACL Student Session (2011); NAACL Student Session (2012); EACL (2012, 2009); COLING (2010); Australasian Language Technology (2011, 2010, 2009, 2008); ICAIL (2013, 2011); AIRS (2010); SIGIR (2010, 2009). | | | |
|  | **Workshop PCs:** Language Technology for Cultural Heritage, Social Sciences, and Humanities (ACL 2013, ACL 2011, ECAI 2010, EACL 2009, LREC 2008); Web Science and Information Exchange in the Medical Web (WWW 2011); Applying Human Language Technology to Law (ICAIL 2011); Active Learning for Natural Language Processing (NAACL 2010, NAACL 2009); Mining User-Generated Content for Security (2009); CLUK Research Colloquium (2007). | | | |
|  | **Student Volunteer:** ACL (2006, 2005). | | | |
|  | **Internal:** Reading group (2010-2011, ə-Lab), Fire steward (2005-2008, U of Edinburgh). | | | |
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| Consulting | | | | |
|  | **July – September 2008** | | | **Capital Markets CRC Limited** |
|  | Consultant, Financial Text Mining | | | |
|  | Advised on setup of text mining infrastructure. | | | |
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|  | **July 2006** | | | **ITI Scotland Limited** |
|  | Consultant, Text Mining Review | | | |
|  | Reviewed portability of automated text curation software to different application domains (e.g., scientific literature, resumes, law and legal opinion). | | | |
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| Industry Outreach | | | | |
|  | I am a strong advocate of the use of language technology in the commercial world. I have contributed insight and advice to technology managers at Thomson Reuters, Royal Bank of Scotland, Wotnews, Sirca, Ernst and Young, Nuix and Fairfax Digital. | | | |
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| Talks | | | | |
|  | Bootstrapping Named Entity Recognition: Active Learning and Annotator Performance, Thomson West, Eagan, MN, USA (2005) | | | |
|  | Bootstrapping Named Entity Recognition: Active Learning and Annotator Performance, Stanford University (2005) | | | |
|  |  | | | |
| Technical Skills | | | | |
|  | Various programming languages (e.g., Python, Perl, Java, C/C++, XSLT) | | | |
|  | Various data management tools (e.g., XML, Tokyo Cabinet, PostgreSQL, Django) | | | |
|  | System/corpus design and development (e.g., IE, Summarisation, QA) | | | |
|  | Various language/speech and machine learning tools (e.g., LT TTT, NLTK, Weka, R) | | | |
|  | Spanish (minor, U of Minnesota), Ojibwe (1 year, U of Minnesota) | | | |
|  | French, German, Italian (travel-oriented independent study) | | | |
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| Certificates/Transferable Skills | | | | |
|  | IP in IT and Patent Searching (2006, U of Edinburgh) | | | |
|  | Managing Research Projects (2006, U of Edinburgh) | | | |
|  | Time Management (2006, U of Edinburgh) | | | |
|  | Communicating Science to Non-specialists (2005, U of Edinburgh) | | | |
|  | European Master’s in Language and Speech (2002, ISCA & EACL) | | | |
|  | XML Document Management (2002, U of Edinburgh) | | | |
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| Publications | | (Citation counts from Google Scholar. Current h-index:11.) |
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|  | ***Journal Articles*** | |
|  |  | |
|  | Evaluating Entity Linking with Wikipedia. **B. Hachey**, W. Radford, J. Nothman, M. Honnibal and J. R. Curran. *Artificial Intelligence*, 193: 130-150(2013). (citations: 9) | |
|  |  | |
|  | Datasets for Generic Relation Extraction. **B. Hachey**, C. Grover and R. Tobin. *Journal of Natural Language Engineering*, 18(1): 21-59 (2011). (citations: 4) | |
|  |  | |
|  | Extractive Summarisation of Legal Texts. **B. Hachey** and C. Grover. *Artificial Intelligence and Law: Special Issue on E-government*, 14(4):305-345 (2006). (citations: 32) | |
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|  | ***Refereed Conference Papers*** | |
|  |  | |
|  | Event Linking: Grounding Event Reference in a News Archive. J. Nothman, M. Honnibal, **B. Hachey** and J. Curran. In *Proceedings of the 50th Annual Meeting of the Association for Compntational Linguistics*, Korea (2011). (citations: 3) | |
|  |  | |
|  | Graph-based Named Entity Linking with Wikipedia. **B. Hachey**, W. Radford and J. Curran. In *Proceedings of the 12th International Conference on Web Information System Engineering*, Sydney (2011). (citations: 5) | |
|  |  | |
|  | Multi-Document Summarisation Using Generic Relation Extraction. **B. Hachey**. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing*, Singapore (2009). (citations: 11) | |
|  |  | |
|  | Generic Relation Identification: Models and evaluation. **B. Hachey**. In *Australasian Language Technology Workshop*, Sydney, Australia (2009). | |
|  |  | |
|  | Tracking Information Flow in Financial Text. W. Radford, **B. Hachey**, J. R. Curran and M. Milosavljevic. In *Australasian Language Technology Workshop*, Sydney, Australia (2009). (citations: 3) | |
|  |  | |
|  | Investigating the Effects of Selective Sampling on the Annotation Task. **B. Hachey**, B. Alex and M. Becker. In *9th Conference on Computational Natural Language Learning*, Ann Arbor, MI, USA (2005). (citations: 32) | |
|  |  | |
|  | Sequence Modelling for Sentence Classification in a Legal Summarisation System. **B. Hachey** and C. Grover. In *20th Annual ACM Symposium on Applied Computing*, Santa Fe, NM, USA (2005). (citations: 21, *\*\*\*ACM SIGAPP Student Travel Award\*\*\*)* | |
|  |  | |
|  | Automatic Legal Text Summarisation: Experiments with summary structuring. **B. Hachey** and C. Grover. In *10th International Conference on Artificial Intelligence and Law*, Bologna, Italy (2005). (citations: 15) | |
|  |  | |
|  | Sentence Extraction for Legal Text Summarisation. **B. Hachey** and C. Grover. In *Proceedings of the 19th International Joint Conference on Artificial Intelligence (Posters)*, Edinburgh, Scotland (2005). | |
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|  | Sentence Classification Experiments for Legal Text Summarisation. **B. Hachey** and C. Grover. In *17th Annual Conference on Legal Knowledge and Information Systems*, Berlin, Germany (2004). (citations: 7) | |
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|  | Adaptive, Multilingual Named Entity Recognition in Web Pages. G. Petasis, V. Karkaletsis, C. Grover, **B. Hachey**, M.-T. Pazienza, M. Vindigni, J. Coch. In *Proceedings of the 16th European Conference on Artificial Intelligence (Posters)*, Valencia, Spain (2004). (citations: 4) | |
|  |  | |
|  | Automatic Summarisation of Legal Documents. C. Grover, **B. Hachey**, I. Houghson and C. Korycinski. In *9th International Conference on Artificial Intelligence and Law*, Edinburgh, Scotland (2003). (citations: 24) | |
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|  | Demonstration of the CROSSMARC System. V. Karkaletsis, C. D. Spyropoulos, D. Souflis, C. Grover, **B. Hachey**, M.-T. Pazienza, M. Vindigni, E. Cartier and J. Coch. In *Proceedings of the Human Language Technology Conference (Demonstrations)*, Edmonton, Canada (2003). | |
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|  | ***Refereed Workshop Papers*** | |
|  |  | |
|  | Tracking Information Flow between Primary and Secondary News Sources. W. Radford, **B. Hachey**, J. R. Curran and M. Milosavljevic. In *NAACL Workshop on Computational Linguistics in a World of Social Media*, Los Angeles, CA, USA (2010). | |
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|  | Automating Financial Surveillance. M. Milosavljevic, J.-Y. Delort, **B. Hachey**, B. Arunasalam, W. Radford and J. R. Curran. In *Mining User-Generated Content for Security*, Venice, Italy (2009). (citations: 2) | |
|  |  | |
|  | Domain-Neutral Relation Characterisation: Evaluation on disease-treatment data. **B. Hachey**. In *ISMB BioLINK SIG Meeting: Linking Literature, Information and Knowledge for Biology*, Vienna, Austria (2007). (citations: 1) | |
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|  | Comparison of Similarity Models for the Relation Discovery Task. **B. Hachey**. In *ACL Workshop on Linguistic Distances*, Sydney, Australia (2006). (citations: 6) | |
|  |  | |
|  | Dimensionality Reduction Aids Term Co-occurrence based Multi-Document Summarisation. **B. Hachey**, G. Murray and D. Reitter. In *ACL Workshop on Task-Focused Summarization and QA*, Sydney, Australia (2006). (citations: 4) | |
|  |  | |
|  | Optimising Selective Sampling for Bootstrapping Named Entity Recognition. M. Becker, **B. Hachey**, B. Alex and C. Grover. In *ICML Workshop on Learning with Multiple Views*, Bonn, Germany (2005). (citations: 27) | |
|  |  | |
|  | The HOLJ Corpus: Supporting summarisation of legal texts. C. Grover, **B. Hachey** and I. Hughson. In *COLING Workshop on Linguistically Interpreted Corpora*, Geneva, Switzerland (2004). (citations: 7) | |
|  |  | |
|  | A Rhetorical Status Classifier for Legal Text Summarisation. **B. Hachey** and C. Grover. In *ACL Text Summarization Branches Out Workshop*, Barcelona, Spain (2004). (citations: 13) | |
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|  | Use of Ontologies for Cross-lingual Information Management in the Web. **B. Hachey**, C. Grover, V. Karkaletsis, A. Valarakos, M.-T. Pazienza, M. Vindigni, E. Cartier and J. Coch. In *Workshop on Ontologies and Information Extraction*, Bucharest, Romania (2003). (citations: 11) | |
|  |  | |
|  | Summarising Legal Texts: Sentential tense and argumentative roles. C. Grover, **B. Hachey** and C. Korycinski. In HLT-NAACL *Workshop on Text Summarization*, Edmonton, Canada (2003). (citations: 24) | |
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|  | ***Shared Task Papers*** | |
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|  | Document-level entity linking: CMCRC at TAC 2010. W. Radford, **B. Hachey**, J. Nothman, M. Honnibal and J. R. Curran. In *Proceedings of the Text Analysis Conference*, Gaithersburg, MD, USA (2010). (citations: 7) | |
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|  | The Embra System at DUC 2005: Query-oriented multi-document summarization with a very large latent semantic space. **B. Hachey**, G. Murray and D. Reitter. In *Proceedings of the Document Understanding Conference*, Vancouver, BC, Canada (2005). (citations: 24) | |
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|  | Selective Sampling for Information Extraction. **B. Hachey**, M. Becker, C. Grover and E. Klein. In *Proceedings of the PASCAL Challenge Workshop on Evaluating Machine Learning for Information Extraction*, Southampton, UK (2005). | |
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|  | Grounding Gene Mentions with Respect to Gene Database Identifiers. **B. Hachey**, H. Nguyen, M. Nissim, B. Alex and C. Grover. In *BioCreAtIvE Workshop (Critical Assessment of IE Systems in Biology)*, Granada, Spain (2004). (citations: 7) | |
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|  | ***Theses*** | |
|  |  | |
|  | Towards Generic Relation Extraction. **B. Hachey.** PhD Thesis, University of Edinburgh (2009). (citations: 8) | |
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|  | Recognising Clauses using Symbolic and Machine Learning Approaches. **B. Hachey.** Master’s Thesis, University of Edinburgh (2002). (citations: 14) | |