Stephen Merity

Bachelor of Information Technology (Honours) candidate @ University of Sydney (2008 – Present)
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EXPERIENCE

Data Analytics and Interaction Mechanics Dec 2010 – Present

Freelancer.com, Sydney

Team Lead

Applied advanced data mining methods, statistical testing and machine learning techniques to increase the overall customer satisfaction and revenue on *Freelancer.com*.

IT Special Project Mar 2010 – July 2010

School of I.T., University of Sydney

Improved the performance of the C&C parser by over 10% by optimizing C++ code and implementing a caching system for the CCG formalism. Experimented with feature hashing to allow machine learners to handle more features with little performance loss.

Google App Engine Dec 2009 – Mar 2010

Google Sydney

Internship

Helped triage and fix multiple bugs in live production code and implemented a feature to enable rapid querying of existing user data. Work was performed in three languages (Java, C++ and Python) with code reviews and unit tests required for each commit.

Wunderkammer Mar 2009 – Sept 2010

School of Linguistics, University of Sydney

Research Assistant

Independently implemented and improved Java code for an application to import data in a variety of formats into Wunderkammer - an electronic dictionary for mobile phones.

Summer Research Scholarship Project Nov 2008 – Mar 2009

School of I.T., University of Sydney

Vacation Scholar

Independently performed feature analysis and implemented Viterbi decoding to classify sentences into an Argumentative Zoning schema using a maximum entropy classifier.

Data Structures (Advanced) Research Project Aug 2008 – Nov 2008

School of I.T., University of Sydney

Worked in a team to develop software to operate a remote control helicopter using a SunSPOT controller - a wireless sensor network device developed by Sun Microsystems.

Astrofact Aug 2008 – Nov 2008

Talented Students Program Research Project, University of Sydney

Worked in a team to implement a prototype system for online querying of an astronomy literature corpus. This involved extracting text from LaTeX files and then training a classifier to perform named entity recognition over the corpus.

PUBLICATIONS

Accurate Argumentative Zoning with Maximum Entropy models 2009
Stephen Merity, Tara Murphy and James R. Curran
Proceedings of the 2009 Workshop on Text and Citation Analysis for Scholarly Digital Libraries, ACL-IJCNLP 2009, pages 19–26

AWARDS AND HONOURS

Google Australia Prize for Excellence in Computer Science	2011
Sydney University Honours Scholarship	2011
Google Sydney Summer Internship, Google Sydney	2009 – 2010
School of I.T. 2nd Year High Honour Roll, University of Sydney	2009
Best Undergraduate Plan and Elevator Pitch (Genesis Business Plan Competition)	2009
Microsoft Research Asia Scholarship	2008 – Present
Microsoft Research Asia Prize for Junior Software Development Projects	2008
School of I.T. Summer Research Scholarship, University of Sydney	2008
School of I.T. 1st Year High Honour Roll, University of Sydney	2008
Faculty of Engineering and I.T. Dean's List for Academic Merit, University of Sydney	2008
Best Programmer Award, National Computer Science School	2007

LEADERSHIP EXPERIENCE

Sydney University IT Society (SUITS) Aug 2009 – Sept 2010
President – Responsible for co-ordinating and running SUITS on a day to day basis.
National Computer Science School Jan 2009, 2010, 2011
Tutor – Teaching Python programming and Web Design skills to High School students with the aim of them developing a fully functional website by the end of a single week.

Tutoring: Informatics Advanced (INFO1903), Operating Systems & Machine Principles (COMP2129), Database Systems 1 Advanced (INFO2820), Data Structures (INFO1105)
Mentoring: Data Structures Advanced (INFO1905)

TECHNICAL SKILLS

- Operating Systems: Linux/Unix and Windows
- Programming: Proficient in Python and C, familiar with using C++, Java, HTML and shell scripting
- Particular expertise in the Natural Language Processing field including tagging, parsing and the underlying classifiers and algorithms used to carry out these tasks
- Experience with linear programming and integer linear programming in solving optimization problems
- Strong written and oral communication skills learned from writing research literature, giving presentations and teaching students