Joseph Chang

Curriculum Vitae

LTI, Carnegie Mellon University
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Education

2013–2018 (exp.)	**Ph.D, Computer Science**, *Carnegie Mellon University*. Focus on **Human-Computer Interaction** and **Natural Language Processing**. Crowd-powered machine learning / Machine learning supported crowdsourcing. Won course project competitions for *Algorithms for NLP* and *Language and Statistics*.
2010–2012	**M.S., Computer Science**, *National Tsing Hua University*, GPA 4.2/4.3. Focus on **Natural Language Processing** and **Machine Learning**. Publications in top NLP conferences (ACL, NAACL, COLING)
2006–2010	**B.S., Computer Science**, *Yuan Ze University*, GPA 3.6/4.0. Special Project: IC design automation, specifically FPGA technology mapping.

Selected Work Experience

April–July 2013	**Search Engineer, Asia-Pacific**, *Yahoo Taiwan Inc*. Fulltime. Yahoo knowledge graph backend and data analysis. Including search log mining, database integration, and a web-based backstage interface. (Hadoop Search log analysis)
2009–2011	**Research Assistant**, *Academia Sinica*. Develop an Expectation-Maximization based algorithm on Hadoop for cross-lingual ontology mapping (EHowNet and WordNet).
Fall 2012	**Teaching Assistant**, *Natural Language Processing*, National Tsing Hua University. Recitations and lab sessions.
April–June 2012	**Contractor**, *OpenMoko Inc*. Developed an Android client for the social network https://intelligencia.io. (Java, Android)
May–Sept. 2010	**Software Engineer Intern**, *0xlab Inc*. Developed an open source Android benchmarking platform and server-side visualization called 0xBench, which is used by major smartphone companies and developers worldwide, and ships with Texas Instrument's development boards. (C, Java, Android, Web)

Selected Honors and Hackathon Awards

Please see my portfolio page for demo videos: http://joseph.nlpweb.org/portfolio/

First Place	**Fun Taipei Mobile App Contest**, *Taipei City Government*. Developed *Taipei Fever*, a Taipei City tour guide app for iOS, Android, and WindowsPhone.
Bronze Medal (<10%)	**National IC/CAD Programming Contest**, *Ministry of Education*. Developed a 3D-IC partitioning algorithm implemented in 3000+ lines of C++/STL code. A total of 160 teams participated to compete on runtime and algorithm performance.
Best Student Project	**Mobile Hero UI Contest**, *Ministry of Economic Affair*. Developed *Paper Piano*, an augmented reality virtual instrument for Android.

Second Place	**The 11th Trend Micro Programming Contest**, *Trend Micro Inc.*. Out of 67 teams that participated.
8 Aug. 2011	**Presenter**, *Conference for Open Source Coders, Users and Promoters (COSCUP)*. Presented project 0xBench in the largest OSS conference in Asia. (attendance: 1200)
Scholarship	**Travel Grants**. ○ The Association for Computational Linguistics and Chinese Language Processing ○ Department of Information System and Applications, National Tsing Hua University ○ Department of Computer Science and Engineering, National Yuan Ze University

Selected Publications

Joseph Chang, Jason S. Chang, and Roger Jyh-Shing Jang. Learning to find translations and transliterations on the web. In *Proceedings of the 50th Annual Meeting of the Association for Computational Linguistics (ACL, acceptance rate: 20%)*, Jeju Island, Korea, July 2012.

Joseph Chang, Richard Tzong-Han Tsai, and Jason S. Chang. Wikisense: Supersense tagging of wikipedia named entities based wordnet. In *Proceedings of the 23rd Pacific Asia Conference on Language, Information and Computation (acceptance rate: 25%)*, Hong Kong, China, December 2009.

Joseph Chee Chang, Aniket Kittur, and Nathan Hahn. Alloy: Clustering with crowds and computation. In *Conference on Human Factors in Computing Systems (CHI, acceptance rate: 23%)*, 2016.

Nathan Hahn, Joseph Chee Chang, Ji Eun Kim, and Aniket Kittur. The knowledge accelerator: Big picture thinking in small pieces. In *Conference on Human Factors in Computing Systems (CHI, acceptance rate: 23%)*, 2016.

Jian-Cheng Wu, Joseph Chang, Yi-Chun Chen, Shih-Ting Huang, Mei-Hua Chen, and Jason S. Chang. Helping Our Own: NTHU NLPLAB system description. In *Proceedings of the Seventh Workshop on Building Educational Applications Using NLP*, Montreal, Canada, June 2012. North American Chapter of the Association for Computational Linguistics (NAACL).

Technical Keywords

Intermediate	**Ruby on Rails, Objective-C/iOS, Ruby**
Proficient	**Web Front/Back-end, ReactJS, Python, Hadoop, Java/Android, C/C++**
Research	**Natural Language Processing, Human-Computer Interaction, Machine Learning**