

Joseph Chee Chang

Curriculum Vitae

LTI, Carnegie Mellon University
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Education

- 2013–2018 **Ph.D, Computer Science**, *Carnegie Mellon University*.
(exp.) Focus on **Human-Computer Interaction**: Sensemaking, Crowdsourcing, and Machine Learning. Won course project competitions for *Algorithms for NLP* and *Language and Statistics*. Advisor: Aniket Kittur.
- 2010–2012 **M.S., Computer Science**, *National Tsing Hua University*.
Focus on **Natural Language Processing** and **Web Information Extraction**. Thesis work published in ACL 2012. Advisor: Roger Jang.
- 2006–2010 **B.S., Computer Science**, *Yuan Ze University*.
Special Project: IC design automation, specifically FPGA technology mapping.

Selected Work Experience

- May–August 2016 **PhD Research Intern**, *Microsoft Research*.
Worked on collaborative crowdsourcing for collecting training labels for complex datasets. To be published at ACM SIGCHI 2017.
- April–July 2013 **Search Engineer, Asia-Pacific**, *Yahoo Taiwan Inc*.
Fulltime. Yahoo knowledge graph backend and data analysis: search log mining (Hadoop), database integration, and web-based backstage interface.
- 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 **Software Engineer Contractor**, *OpenMoko Inc (startup)*.
Developed the Android client for an online social network. (Java, Android)
- May–Sept. 2010 **Software Engineer Intern**, *0xlab Inc (startup)*.
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 Awards

- Research Grant **Google Faculty Research Award**, 2015.
Co-authored the proposal: *Modeling and Augmenting Sensemaking and Exploratory Search* (PI: Professor Aniket Kittur).

Research	Yahoo InMind Project, 2016.
Grant	Co-authored the proposal: Mobile Intelligent Assistants: <i>From Search Results to Search Landscapes</i> (PI: Professor Aniket Kittur).
First Place	Fun Taipei Mobile App Contest, Taipei City Government. Developed <i>Taipei Fever</i> , 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 Affairs. Developed <i>Paper Piano</i> , an augmented reality virtual instrument for Android.
Second Place	The 11th Trend Micro Programming Contest, Trend Micro Inc.. Out of 67 teams that participated.
Presenter	Conference for Open Source Coders, Users and Promoters (COSCUP). Presented project 0xBench at the largest OSS conference in Asia. (attendance: 1200)

Selected Publications

Joseph Chee Chang, Saleema Amershi, and Ece Kamar. Revolt: Collaborative crowdsourcing for labeling machine learning datasets. In *ACM SIGCHI (25%)*, 2017. (conducted during an internship at Microsoft Research, Redmond).

Joseph Chee Chang, Aniket Kittur, and Nathan Hahn. Alloy: Clustering with crowds and computation. In *ACM SIGCHI (23%, Honorable Mention)*, 2016.

Nathan Hahn, Joseph Chee Chang, Ji Eun Kim, and Aniket Kittur. The knowledge accelerator: Big picture thinking in small pieces. In *ACM SIGCHI (23%, Honorable Mention)*, 2016.

Joseph Chang, Jason S. Chang, and Roger Jyh-Shing Jang. Learning to find translations and transliterations on the web. In *Proc. of Annual Meeting of the Association for Computational Linguistics (ACL, 20%)*, 2012.

Joseph Chee Chang, Nathan Hahn, and Aniket Kittur. Supporting mobile sense-making through intentionally uncertain highlighting. In *ACM UIST (20.6%)*, 2016.

Joseph Chang, Richard Tzong-Han Tsai, and Jason S. Chang. Wikisense: Supersense tagging of wikipedia named entities based wordnet. In *Proc. of Pacific Asia Conference on Language, Information and Computation (PACLIC, 25%)*, 2009.

Jian-Cheng Wu, Joseph Chang, Yi-Chun Chen, Shih-Ting Huang, Mei-Hua Chen, and Jason S. Chang. NTHU NLPLAB system description. In *NAACL 7th Workshop on Building Educational Applications Using NLP*, 2012.

Technical Keywords

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