

## Lwin Moe

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<http://lwinmoe.org>

## Education

### **Indiana University, Indiana, USA (December 2010)**

- M.A., Computational Linguistics

### **Asian Institute of Technology, Bangkok, Thailand (May 2009)**

- M.S., Computer Science
- Thesis: Automatic Bitext Alignment for Southeast Asian Languages

### **Purdue University, Indiana, USA (May 2002)**

- B.S., Information Systems, minor in Mathematics
- Graduated with highest distinction; Cumulative GPA: 3.85

## Experience

### ***Application Engineer (September 2018 – March 2020)***

*Southpaw Technology Inc., Toronto, Canada*

- Built software components and widgets for open source TACTIC workflow engine in Python (<https://github.com/Southpaw-TACTIC/TACTIC>)
- Prepared, built and tested data and workflow management sites for clients.
- Ensured software quality through testing (manual and automated unit tests).
- Wrote technical documentation.

### ***Database Analyst/Programmer (February 2011 - January 2018)***

*The LINGUIST List, Indiana University, USA*

- Deployed and maintained database and web servers for research projects on the Google App Engine and Amazon Web Services platforms.
- Implemented and maintained project websites using Python in Django web framework.
- Worked on language modeling and computational linguistic research projects.
- Evaluated and recommended new technologies for the organization.
- Designed and built the infrastructure to collect data for Endangered Language Catalogue Project (with Google and the University of Hawaii) (<http://endangeredlanguages.com>)
- Extracted and built electronic lexicons for Lexicon Enhancement via the GOLD Ontology project (<http://linguistlist.org/projects/lego1.cfm>)
- Worked on a Document Classification project using Naive Bayes Classifier implemented in Python for risk documents from US Securities and Exchange Commission.
- Data extraction in Python for NLP research projects, extracting name entities using NLTK.
- Natural Language Parsing with Context Free Grammar in NLTK.
- Involved in Lexical Functional Grammar parser project.

### ***Research Assistant (June 2005-August 2009)***

*Center for Research in Computational Linguistics, Bangkok, Thailand.*

- Designed and implemented Southeast Asian Linguistic Archives (<http://sealang.net/sala>)
- Designed and implemented Southeast Asian language-related computer tools
- Designed and implemented software to automatically align Thai-English bitext corpora
- Extracted and processed data for Burmese-English dictionary project (<http://burmese.sealang.net>)
- Assisted in the implementation of Thai, Khmer, Mon, Shan, and Karen dictionaries (<http://sealang.net>)
- Note: Most of the above projects were funded by the U.S. Department of Education's TICFIA program.

### ***Information Technology Consultant (December 2004-May 2005)***

*Digital Divide Data, Vientiane, Laos. (<http://digitaldividedata.com>)*

- Provided on-site IT training to Digital Divide Data Laos (DDDL) management team
- Created a detailed IT curriculum for training of DDDL staff
- Authored a manual on the maintenance of DDDL's IT systems

### ***Assistant Lecturer (December 2002-November 2004)***

*Myanmar Institute of Theology, Rangoon, Burma.*

- Taught computer science and mathematics to Bachelor of Arts in Religious Studies (BARS) students
- Assisted in establishing the IT infrastructure at Myanmar Institute of Theology
- Served as a consultant in the areas of curriculum development for BARS program

## **Open-source NLP Contribution**

- Burmese word segmentation program using Foma-generated Finite State Automata
  - <https://github.com/lwinmoe/segment>
- Burmese word segmentation using Conditional Random Fields
  - [https://github.com/lwinmoe/segment\\_crf](https://github.com/lwinmoe/segment_crf)
- Burmese syllabification
  - [https://github.com/lwinmoe/burmese\\_syllabify](https://github.com/lwinmoe/burmese_syllabify)

## **Computer Skills**

- Python (Django, NLTK, Scikit-learn, Fabric), Perl, Java.
- JavaScripts (jQuery, D3, OpenLayers), HTML5, CSS (Bootstrap).
- Linux, Unix, Apache, Tomcat, PostgreSQL, MySQL, MongoDB, Amazon Web Services, Google App Engine.
- GNU Octave, R, Maple.