

# Guowei Lv

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*A keen software developer with a data scientist's mindset  
and an artistic eye*

## Education

2010–2014 **Master**, *University of Helsinki*, Helsinki, GPA: 4.3.

Machine Learning and Algorithms

2006–2010 **Bachelor**, *North University of China*, Shanxi, China, GPA: 4.

Network Engineering

## Master thesis

Title *Cognate Discovery and Alignment in Computational Etymology*

Description This master thesis discusses two main tasks of computational etymology. First, finding cognates in multilingual text. Second, finding underlying correspondence rules by aligning cognates. You can find more information in the research project [\*etymon\*](#) I participated when I wrote my thesis.

## Bachelor Graduation Project

Title *Design and Analysis of Computer Vision Software with OpenCV*

Description This project aims to give a brief introduction level discussion about various image processing techniques. It is built using C++ and OpenCV.

## Experience

### Vocational

2012–Present **Software Developer**, *IDT Messaging*, Helsinki.

Fullstack development across backend, frontend and Android client.

#### Android Development:

- *Presto*: A cutting-edge chat application;
- Messaging SDK: An android SDK provides messaging capability to any application;
- Magicwords SDK: provides *Magicwords* integration to messaging-like applications;

#### Backend Development:

- Magicwords Backend: Implement natural language processing algorithms in a Flask based backend using Python;

#### Frontend Development:

- Magicwords online editor: Build an online editor to browse and edit the Magicwords data store using AngularJS and CouchDB;

2012 **Research Assistant**, *University of Helsinki*, Helsinki.

**Subject:** work in the etymology project, which applies information theory (Minimum Description Length) to etymology multilingual data set to get the underlying relations of languages in Uralic Language Family. The whole project is written in Java. I implemented two new models and was in charge of maintaining the project for several months.

2011 **Summer Internship**, *Aalto University MI Group*, Espoo.

**Subject:** Develop an academic recommendation system, which can recommend papers to researchers based on the information of the users. I developed a special PDF reader using Qt and C++. The reader can capture the words on the screen with the displaying time of each. I also implemented all the prototype recommendation algorithms in Python and MongoDB.

### Miscellaneous

#### Hobby Project.

*HSL Router*: An easy-to-use android app for the public transportation system HSL in Finland. Has more than 6,000 downloads, but unfortunately not working anymore because service API updates. Hope I can find time to redo it and make it even cooler.

## Computer skills

Mobile	Android	Backend	Flask, CouchDB, MongoDB
Frontend	Javascript, AngularJS, CSS3, HTML5	Tools	Emacs, Android studio, Git, Jira, Jenkins, Linux

## Languages

Mandarin	Native
English	Fluent
Finnish	Learning

## Interests

*Literate Programming* I have been using this technique as much as possible from note taking to small demo projects. Using Emacs and *org-mode* as a tool. Some samples can be found from my *Github* account.

*Digital Painting* I'm always drawing. Recently started digital painting using Corel Painter and Krita. Here is my portfolio at *Deviantart*.