

# Li-An Yang

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[li-an.me](http://li-an.me)

## Education

Sep. 2012 – Jun. 2016	National Chiao Tung University, Bachelor of Science	Hsinchu, Taiwan
<ul style="list-style-type: none"><li>• Major: Computer Science (GPA: 3.53/4.00, Last 60 Units: 3.92/4.00)</li><li>• Relevant Courses (*graduate level courses): Data Mining*, Cloud Computing Systems and Applications*, Introduction to Database Design, Algorithms, Statistics, Probability, Data Structures, Linear Algebra, Technology Entrepreneurship</li></ul>		
Feb. 2016 – Jun. 2016	University of Technology of Compiègne, Exchange Student	Compiègne, France

## Publications

**Li-An Yang**, Jui-Pin Liu, Chao-Hong Chen, & Ying-Ping Chen. (2016). Automatically Proving Mathematical Theorems with Evolutionary Algorithms and Proof Assistants. In Proceedings of 2016 IEEE Congress on Evolutionary Computation (CEC 2016). (pp. 4421–4428). doi: [10.1109/CEC.2016.7744352](https://doi.org/10.1109/CEC.2016.7744352). (EI). [\[Github\]](#)

## Work Experience

<b>Research Assistant</b> , Institute of Information Science, Academia Sinica	Mar. 2017 – Present
<ul style="list-style-type: none"><li>• <b>De Novo Genome Assembly</b><ul style="list-style-type: none"><li>– Proposed an intelligent process of genome assembly with XGBoost for subset selection of sequencing reads</li><li>– Achieved the relative improvements of assembly results ranging from 25% to 35% on N50 statistic</li></ul></li><li>• <b>User Intention Understanding on Taiwan Open Platform for Educational Resources</b><ul style="list-style-type: none"><li>– Revealed search keyword trends via website log data characterization</li><li>– Developed and automated the keyword generation pipeline for resource recommendation in primary education</li></ul></li></ul>	
<b>Private</b> , Military Police, Taiwan (compulsory military service)	Sep. 2016 – Jan. 2017
<b>R&amp;D Intern</b> , Email Reputation Services Division, Trend Micro Inc.	Jul. 2015 – Aug. 2015
<ul style="list-style-type: none"><li>• <b>Pattern Recognition</b><ul style="list-style-type: none"><li>– Simulated patterns of malicious mail attacks with log-based data hashing and clustering</li><li>– Successfully identified new paradigms out of originally unstructured metadata</li></ul></li></ul>	

## Selected Term Projects

<b>Automatically Proving Mathematical Theorems with Evolutionary Algorithms and Proof Assistants</b> <a href="#">[Link]</a> <a href="#">[Github]</a>
<ul style="list-style-type: none"><li>• The first to generate formal proofs automatically by exploiting proof assistant Coq with evolutionary algorithms</li><li>• Proved ten theorems in different branches of mathematics automatically: Arithmetic, Logic, &amp; Parity</li></ul>
<b>A Voice-controlled Streaming Jukebox based on IBM Bluemix Cloud Service</b> <a href="#">[Link]</a>
<ul style="list-style-type: none"><li>• Established music streaming services on Raspberry Pi featuring personal music recommendation</li><li>• Deployed IBM Watson APIs to carry out on-demand speech-text transcription and social networking services</li></ul>
<b>Right Whale Recognition Competition on Kaggle</b> <a href="#">[Link]</a>
<ul style="list-style-type: none"><li>• Adopted a bag-of-features model to extract distinctive image features</li><li>• Improved the evaluated score by thirty percent in limited time</li></ul>
<b>A Gitlab Continuous Integration Cloud Service</b> <a href="#">[Link]</a>
<ul style="list-style-type: none"><li>• Built a cloud service for version control that automatically ran builds and self-testing when a commit was pushed</li><li>• Launched multiple composite cloud applications via a yaml template on Openstack</li></ul>

## Honors and Scholarships

<b>Cloud Computing Credit Program Certificate</b> , National Chiao Tung University	Spring 2016
<ul style="list-style-type: none"><li>• Approved the corresponding skills via completing the required Cloud Computing curriculum</li></ul>	
<b>Philéas Accueil Scholarship</b> , University of Technology of Compiègne	Spring 2016
<ul style="list-style-type: none"><li>• Awarded to brilliant exchange students at UTC in France</li></ul>	
<b>Fellowship for Research Projects in Computer Science</b> , National Chiao Tung University	Fall 2015
<b>Statement of Accomplishment</b> , Coursera	Spring 2015
<ul style="list-style-type: none"><li>• Completed <i>Machine Learning</i> from Professor Andrew Ng, Stanford University</li><li>• Completed <i>R Programming</i> from Professor Roger D. Peng, John Hopkins University</li></ul>	

## **Skills & Test Scores**

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<b>Programming Languages</b>	Python, R, MATLAB, C/C++, HTML, Javascript, PHP
<b>Languages</b>	English (fluent), Mandarin Chinese (native), French (basic)
<b>TOEFL iBT</b>	108/120 (Reading 30, Listening 28, Writing 27, Speaking 23)
<b>GRE</b>	Verbal (150/170), Quantitative (168/170), Analytical Writing (3.5/6.0)
<b>Diploma in French Studies A2</b>	76.5/100 (Reading 22, Listening 14, Writing 21, Speaking 19.5)

## **Community Service**

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### **Volunteer at Emmaüs Village in Lescar, France**

- Worked with rehabilitated people and other international volunteers in various factories

### **Volunteer of the Hsing-Guang Project in Hsinchu, Taiwan**

- Entered a remote mountain area to teach educationally underserved children every other week

### **Volunteer of the “Teaching English in China” English Teaching Program in Chaozhou, China**

- Faced more than thirty junior children on stage who barely spoke any foreign language