

Li-An Yang

luke831215@gmail.com +886-922-429-126
li-an.me

Education

Expected Sep. 2018	University of California, San Diego, Master of Science	United States
Sep. 2012 – Jun. 2016	National Chiao Tung University, Bachelor of Science	Taiwan
<ul style="list-style-type: none">Major: Computer Science (GPA: 3.53/4.00, Last 60 Units: 3.92/4.00)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		
Feb. 2016 – Jun. 2016	University of Technology of Compiègne, Exchange Student	France

Publications

- Li-An Yang**, Wei-Chun Chung, Yu-Jung Chang, Shu-Hwa Chen, Chung-Yen Lin, & Jan-Ming Ho. The Spiral Assembler: An Iterative Process of NGS De Novo Genome Assembly with Machine-Learning for Subset Selection on Quality-Score and K-Mer Landscape. Technical Report, submitted to Institute of Information Science, Academia Sinica. doi: [TR-IIS-18-001](https://doi.org/10.1109/CEC.2016.7744352).
- Li-An Yang**, Jui-Pin Liu, Chao-Hong Chen, & Ying-Ping Chen. 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

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

Selected Term Projects

Automatically Proving Mathematical Theorems with Evolutionary Algorithms and Proof Assistants [\[Link\]](#) [\[Github\]](#)

- The first to generate formal proofs automatically by exploiting proof assistant Coq with evolutionary algorithms
- Proved ten theorems in different branches of mathematics automatically: Arithmetic, Logic, & Parity

A Voice-controlled Streaming Jukebox based on IBM Bluemix Cloud Service [\[Link\]](#)

- Established music streaming services on Raspberry Pi featuring personal music recommendation
- Deployed IBM Watson APIs to carry out on-demand speech-text transcription and social networking services

Right Whale Recognition Competition on Kaggle [\[Link\]](#)

- Adopted a bag-of-features model to extract distinctive image features
- Improved the evaluated score by thirty percent in limited time

A Gitlab Continuous Integration Cloud Service [\[Link\]](#)

- Built a cloud service for version control that automatically ran builds and self-testing when a commit was pushed
- Launched multiple composite cloud applications via a yaml template on Openstack

Skills & Test Scores

Programming Languages	Python, R, MATLAB, C/C++
Languages	English (fluent), Mandarin Chinese (native), French (basic)
TOEFL iBT	110/120 (Reading 27, Listening 28, Writing 27, Speaking 28)
GRE	Verbal (150/170), Quantitative (168/170), Analytical Writing (3.5/6.0)
Diploma in French Studies A2	76.5/100 (Reading 22, Listening 14, Writing 21, Speaking 19.5)