

CHIA-SHENG CHEN

Personal Information

E-Mail: mail@cschen.io Phone: +886 913 400 690 (TW) Personal Website: <https://cschen.io> Github: @qitar888

Language

Mandarin: Mother tongue Taiwanese: Mother tongue English: Fluent German: B2 Japanese: Novice

Educational Background

- Bachelor, Computer Science, National Taiwan University, Taipei, Taiwan Sep 2014 – Jan 2019
 - **Chen, C.-S.**, Hsu, H.-W., & Yu, T.-L. (2018). *Fast algorithm for fair comparison of genetic algorithms*. In Proceedings of the Genetic and Evolutionary Computation Conference on - **GECCO '18**.
 - Outstanding Final Project Award. *Tang Poetry Generation*. Special Direction on Machine Learning, Fall '18 (grad-level course).
 - Best Final Project Award. *Seasons (board game)*. Fundamental Object Oriented Programming, Fall '15.
- Exchange Student, Informatik, TU Dortmund, Dortmund, Germany Sep 2017 – Aug 2018
- Taipei Municipal Chien Kuo High School, Taipei, Taiwan Sep 2011 – Jun 2014
 - Nomination for National Selection and Training Camp of **International Olimpiad in Informatics (IOI)**, 2014.
 - Second Prize, National High School Informatics Competition, 2013.
 - Lecturer of Varsity Informatics Team, Sep 2013 – Jun 2014.
 - Member of Varsity Informatics Team, Nov 2011 – Jun 2014.

Research

- **Natural Language Processing (NLP)**, advised by Prof. Hung-Yi Lee Aug 2018 – Now
 - Implemented an end-to-end *Transformer* model in PyTorch, integrating Automatic Speech Recognition (ASR) and One-Turn Dialogue Management into a jointly-optimized system.
- **Genetic Algorithm (GA)**, advised by Prof. Tian-Li Yu Mar 2016 – Apr 2018
 - Proposed an efficiency-comparing framework for general purpose GAs. Formalized the problem and derived the time complexity. **Published at GECCO '18, the top conference in the GA domain.**
- **Spoken Dialogue System (SDS)**, advised by Prof. Yun-Nung Chen Sep 2016 – Jul 2017
 - Designed an unsupervised semantic slot induction algorithm, automatically extracting keywords (slots) from corpus for dialogue management. Adapted to the scheme of Reinforcement Learning (RL). Programmed in PyTorch.

Experiences

- **Backend Engineer** at DirectGo, Taipei, Taiwan May 2017 – Now
 - Co-designed and implemented the current web service (<https://directgo.tw>) in Ruby on Rails from scratch, ranking in top 5 in Taiwan among competitors. Control the development flow. Review merge requests. Deploy to staging and production servers. DirectGo is an e-commerce platform targeting users looking for foreign products (specifically from Amazon US), orders the goods for the users, and ships the products to Taiwan.
- **Part-time Researcher** at Magia.ai, San Jose, CA, US (remote) Apr 2017 – Aug 2017
 - Designed an ontology building algorithm, demonstrating in the domain of vitamin and mineral. Magia.ai aims at creating customized chat bot system for businesses, of which a custom-made domain ontology is an essential component.
- **Contributor** of Ruby 2016 – 2017
 - Contributed 2 commits to Ruby core (#12467 and #13208), accelerating a math operation by 50% and implementing a missing method from its counterpart, respectively.
- **Summer Intern** at Dr. De-Nian Yang's Lab, Academia Sinica, Taipei, Taiwan Jul 2016 – Aug 2016
 - Implemented a graph algorithm on social network, in C++, of an early draft from Dr. Chih-Ya Shen.
- **Summer Intern** at 5xruby, Taipei, Taiwan Jul 2016 – Aug 2016
 - Resolved several issues: routes rearranging, meta tags configuration centralizing, and user experience bugs fixing.
- **Informatics Contest Participant**, Taipei, Taiwan Oct 2011 – Jun 2014
 - Participated in informatics contests of high school level. Received awards across city- and national-level, including Nomination for National Selection and Training Camp, Second Prize for National Competition, Second Prize and Third Prize for Competition of Taipei City, and several Honorable Mentions. Delivered lectures to the varsity team in senior year. Built an online judge platform (TIOJ) for the team.

Miscellaneous

- **Captain** of NTU Computer Science Department Association Football Team Jan 2016 – Jan 2017
 - Led the department team in Freshmen Cup 2014 at NTU and attained bronze prize. Participated in the summer training of the varsity team in summer 2016. Coached Football Club of Wanhua Junior High School.