# CHENG-EN SUNG

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## Summary

Possess strong background knowledge with Graph Mining, and Social Network Analysis.
Seeking a software engineering position in spring 2021, specialized in back-end software development.

## Education

**Sep. 2017 – Jun. 2019** | National Cheng Kung University
Master of Science in Computer and Communication Engineering
- Coursework: Data Mining, Big Data Analytics, Internet of Things
- GPA: 3.8 / 4.0

**Sep. 2013 – Jun. 2017** | Yuan Ze University
Bachelor of Science in Computer Science
- Coursework: Computer Graphic, Agile Software Development
- GPA (Last 2yrs): 3.92 / 4.0

## Work Experience

**Oct. 2020 – Feb. 2021** | **Software Engineering Intern** at Graphen, Inc.
- Introduced Bayesian Network into graph database as a core framework for model prediction
- Implemented *K2* Algorithm for network structure discovery

**Jun. 2017 – Aug. 2017** | **Research Assistant** at Yuan Ze University
- Optimized parameter for USRP Hardware Driver (UHD)
- Implemented multi-threading TX/RX signal transmission on UHD in *C++*

**Jan. 2016 – Jan. 2017** | **Software Engineering Intern** at Industrial Technology Research Institute
- Configured *ModSecurity* for Apache server by customizing rules using *Regex*
- Wrote SQL injection to access the security configuration of the firewall

## Publications

**C. -E. Sung**, H. -S. Ma and J. -W. Huang, "Positive Influence Maximization and Negative Influence Minimization in Signed Networks under Competitive Independent Cascade Model," 2020 IEEE 7th International Conference on Data Science and Advanced Analytics (DSAA), sydney, Australia, 2020, pp. 236-244, doi: 10.1109/DSAA49011.2020.00036.

C. Lee, **C. Sung**, H. Ma, and J. Huang, *"IDR: Positive Influence Maximization and Negative Influence Minimization Under Competitive Linear Threshold Model,"* 2019 20th IEEE International Conference on Mobile Data Management (M.D.M.), Hong Kong, 2019, pp. 501-506, doi: 10.1109/MDM.2019.00013

## Project

**Feb. 2018 – Jun. 2018** | Community Detection
- Implemented *SLPA* algorithm to discern underlying communities structure
- *SLPA* algorithm out-performed *Louvain* algorithm up to 9% in Normalized Mutual Information

**Feb. 2018 – Jun. 2018** | Girlfriend Generator
- Implemented *Deep Convolutional Generative Adversarial Network* to generate anime characters
- Adopted *illustration2vec* to conduct features tagging of generated images

## Competition

**Jun. 28, 2017** | ACM-ICPC National Contest for Private University
ACM-ICPC Contest Council for Taiwan
- Ranked 19 out of 61 teams (ratio of the rank: 31.1%)

**May 26, 2015** | Collegiate Programming Examination
ACM-ICPC Contest Council for Taiwan
- Ranked 114 out of 1818 participants (ratio of the rank: 6.3%)

## Skills

**Software and Tools:** OpenCV, MySQL, Sqlite, MongoDB, Git, Flask
**Programming Language:** C/C++, Python (Keras), Java, JavaScript (ES6)