COLIN CLEVELAND

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EDUCATION

National Taiwan University (NTU) Mar. 2021 - present
M.S. in Electronic Engineering
- GPA in 4.3 scale: 4.0
- Supervised by Ho-Lin Chen in the Lab of Algorithm

National Taiwan University (NTU) Sep. 2014 - Jun. 2019
B.S. in Computer Science and Information Engineering
- GPA in 4.3 scale (Overall/Last 60/Major) : 3.72/4.05/3.8
Minor in Economics and Mathematics

Research Interest: Algorithmic Game Theory, Evolutionary Game Theory, and Deep Learning

HONORS & AWARDS

2018 Taipei City Lion Club Germ Scholarship
2017 National Science Council Undergraduate Student Research Grant
2014 National Taiwan University Hope Scholarship

RESEARCH EXPERIENCE

Research on Algorithmic Game Theory (Prof. Ho-Lin Chen) National Taiwan University
Voting with Poll information Jun. 2018 - Jun.2019, Mar. 2021- present
- Analyzed the complexity and designed algorithms for pollsters to affect elections
- Analyzed how voters faking their preference to maximize their utility.
- Find the general equilibrium between voters and pollsters.

Research on Public Goods Game (Researcher Hsuan-Wei Lee) Academia Sinica
Research assistant Jun. 2020 - present
- Simulated the PGG scenarios with C++, Python.
- Generated dynamic animation to show how games reach equilibrium.
- Summarized the results and plotted them as graphs.

Lab of Algorithmic Research (Prof. Hsueh-I Lu) National Taiwan University
Minimum Cut of Directed Planar Graphs Feb 2018 – Aug. 2018
- Reviewed previous minimum cut algorithms and their proofs.
- Combined old algorithms to create new ones, and analysed the complexity of the new algorithms.

PUBLICATIONS

[1] Lee, H.-W., **Cleveland**, C., and Szolnoki, A. Small fraction of selective players can elevate general cooperation level significantly. *Physica A* (2021).

RELEVANT COURSES

Algorithm	Algorithm Design and Analysis, Formal Languages and Automata Theory, Design Strategies for Computer Algorithms Number Theory, Generating Functions, Asymptotic Theory
Economics	Economics (I) (II), Microeconomics (I) (II), Macroeconomics (I) (II), Topics in Neuroeconomics, Statistics and Econometrics with Recitation (I) (II) Decision Theory
Mathematics	Cryptography, Abstract Algebra, Game Theory Analysis (Honour Program) (I)(II): Basic Topology, Differential Calculus, Integral, Differential Form, Measure Theory Probability (I)(II): Measure Theory, Law of Large Number, Central Limit Theorem, Martingale, Markov Chains, Ergodic Theorems, Brownian Motion

WORK EXPERIENCE

Education Platform — MobLab, Taiwan
Behavioral Science Research Internship — May. 2021 - Sep. 2021
- Examined and designed AI for the educational games.
- Statistically analysed the responses from players.

Business Strategy Department — Fukuoka Bank, Japan
Data Scientist — Dec. 2019 - Feb. 2021
- Business flow analysis with NLP (Japanese).
- OCR of Japanese and number handwriting.
- Discrete data merge (with SQL and NLP)

Graduate Institute of Networking and Multimedia (INM) — National Taiwan University, Taiwan
Part-time worker — Nov. 2015 - Jun. 2019
- Worked as the webmaster of the INM web page.
- Repaired the computers and network in the INM office when they broke down.

SKILLS

Programming	C/C++, Java, Python, PyTorch, SQL, Power BI
Math/Stats Softwar	R, Stata
Web	Flask with Python, JavaScript
Language	Mandarin Chinese (native), Taiwanese (native), English (IELTS:7(overall),L:7,R:8,W:6,S:6.5) French (Basic), Japanese (N2), Czech (Basic)
Test Score	GRE general: (Q:170,V:154,AW:3.0)
Nationality	Taiwan