

Apivich Hemachandra (Kaotoo)

Undergraduate Student

E-mail address: apivich dot hem at gmail fulstop com

City of Residence: Chiang Mai, Thailand

About Me: I am a Physics undergraduate who is interested in pursuing further studies in Computer Science. I am interested in Algorithms research, (particularly optimisation and numerical algorithms) and how they can be implemented and applied in real life.

Education

2016 - 2020, B.Sc. in Physics with minors in Computer Science and Mathematics, Mahidol University International College, Thailand

- Cumulative GPA of 3.99 (First-Class Honours), with GPA 4.00 amongst Major and Minor courses.
 - Received Academic Achievement Awards in 2017, 2018 and 2019.
 - Also was an exchange student at University of Wisconsin-Madison during Fall 2018 (during my 3rd Year of university).
-

Work Experience

August 2020 - present, Data Analyst (part-time), The Gang Technology Co. Ltd., Thailand

- Work on projects outsourced from PTTEP (a Thai petroleum extraction firm), that involves data analytics and decision making under economic, physical or geographical constraints.
- Also have done short-term projects with the same company during my 3rd and 4th Year of study.

August 2019, Research Internship, Vidyasirimedhi Institute of Science and Technology, Thailand

- Worked on project focusing on natural language processing, which was eventually incorporated into my senior thesis.

2018 - 2020, Teaching Assistant

- TA in freshmen-level physics and computer science classes including Data Structures (T3 2018-19, T1 2019-20) and Principles of Physics (T1 2017-18).
 - Main job is to assist students with assignments, grading assignments and help answering questions about class materials.
-

Selected Papers and Projects

Data Diversification in Different Domains (Senior Thesis)

Link: <https://thecheesynachos.github.io/projects/thesis>

Project focuses on corpus filtering and diversification for machine translation tasks, and on solving more general diversification problems through maximisation of submodular functions.

Drawing Fair Voting Districts (Project for Introduction to Optimisation class)

Link: https://www.github.com/thecheesynachos/opt_project

Optimisation problem involving partitioning areas to balance number of individuals in each district.

Awards and Competitions

April 2018, Winner of FameLab Thailand

- A competition hosted by British Council Thailand where competitors gave a three-minute presentation about a scientific topic of their choice to a general audience.
 - Also was selected as the representative for Thailand at FameLab International 2018 at Cheltenham Science Fair, United Kingdom.
-

Skills and Knowledge

For details about some computer science related courses I have taken, please refer to the document at thecheesynachos.github.io/cv/courses_taken.pdf.

Computer Science

Data Structures & Algorithms, Numerical Methods, Convex Optimisation, Machine Learning, Object-Oriented Concepts, Interaction Designs, Introduction to Computer Systems.

Programming

Experiences with writing projects in Python, Java, C++, and Julia, and have some familiarity with working on Linux machines.

Mathematics

Calculus, Linear Algebra, Real Analysis, Discrete Maths, Statistics.

Physics

Classical Mechanics, Electricity & Magnetism, Statistical Mechanics, Atomic and Quantum Physics, Computational Physics, Physics Laboratories.

Language

Thai (native speaker), English (fluent), and Spanish (elementary).

Standardised Scores

- TOEFL iBT: 114 out of 120 (taken in Jan 2020),
- IELTS: 8.5 out of 9.0 (taken in Jan 2018),
- GRE: 168 Quant, 154 Verbal, 4.5 Writing (taken in Oct 2020).

Soft Skills

Team-work and leadership skills, responsible, adaptable, communication and presentation skills, analytical and logical thinking skills.

Personal Interests

Video Making

- RandomMathsInc, at www.youtube.com/c/RandomMathsInc
- A channel with around 7,000 subscribers, which present topics in mathematics, physics and computer science often in wacky ways.

Other Hobbies

- Music - can play the drums, guitar and can sing.
 - Sports, particularly association football.
-