

address 2552 W Walton St, APT 2

Chicago, IL 60622 tel +1 202 531 7347

e-mail pattara.sk127@gmail.com

site https://pattaras.github.io

EDUCATION

Ph.D. in Computer Science — Northwestern University

(expected) June 2019 - June 2023

Advised by Prof. Samir Khuller

Master of Science in Computer Science — The University of Maryland, College Park

August 2017 - May 2019

Advised by Prof. Samir Khuller

Master of Engineering in Computer Engineering — Kasetsart University

August 2014 - January 2018

Advied by Prof. Jittat Fakcharoenphol

Bachelor of Engineering in Computer Engineering — Chulalongkorn University

May 2009 - April 2013

Work Experience

Software Engineer Intern — Meta

June 2022 - September 2022

Research Intern — Adobe

June 2021 - September 2021

Software Engineer Intern — Quora Research Intern — Aalto University in Finland June 2019 - September 2019

Language Operation Engineer — Google Singapore (contract w/ The Optimum Solutions) Oct 2016 - August 2017

May 2018 - August 2018

Language Operation Engineer — Google Thailand (contract w/ Kelly Services Staffing)

June 2015 - June 2016

Application Engineer — The Stock Exchange of Thailand

May 2013 - Apr 2014

Intern — Hua Lampong (Thailand)

Mar 2012 - May 2012

$PUBLICATIONS \ (authors \ are \ listed \ in \ alphabetical \ order \ unless \ indicated \ by \ ^*)$

- [1] Sayan Bhattacharya, Thatchaphol Saranurak, <u>Pattara Sukprasert</u>. **Simple Dynamic Spanners with Near-optimal Recourse against an Adaptive Adversary**. European Symposium on Algorithms (ESA 2022).
- [2] Saba Ahmadi, Pranjal Awasthi, Samir Khuller, Matthäus Kleindessner, Jamie Morgenstern, Pattara Sukprasert, A. Vakilian, Individual Preference Stability for Clustering. International Conference on Machine Learning (ICML 2022).
- [3] Parinya Chalermsook, Chien-Chung Huang, Danupon Nanongkai, Thatchaphol Saranurak, <u>Pattara Sukprasert</u>, Sorrachai Yingchare-onthawornchai. **Approximating k-Edge-Connected Spanning Subgraphs via a Fast Linear Program Solver**. *International Colloquium on Automata, Languages and Programming (ICALP2022)*.
- [4*] Saba Ahmadi, <u>Pattara Sukprasert</u>, Rahulsimham Vegesna, Sanju Sinha, Fiorella Schischilk, Natalie Artzi, Samir Khuller, Alejandro A. Schaffer, Eytan Ruppin. The landscape of receptor-mediated precision cancer combination therapy via a single-cell perspective. *Nature Communications* (2022).
- [5] Parinya Chalermsook, Samir Khuller, P. Sukprasert, Sumedha Uniyal. Multi-transversals for Triangles and the Tuza's Conjecture. Symposium on Discrete Algorithms (SODA 2020).
- [6] Jittat Fakcharoephol, Pattara Sukprasert. An $\mathbf{n}^{\mathbf{O}(1/\epsilon)}$ Approximation Scheme For The Minimum Dominating Set In Unit Disk Graphs. Joint Conference on Computer Science and Software Engineering (JCSSE 2018).

Manuscripts

- [7] Anders Aamand, Justin Y Chen, Allen Liu, Sandeep Silwal, <u>Pattara Sukprasert</u>, Ali Vakilian, Fred Zhang. **Improved Approximations for Individual Preference Stable Clustering**. 2022.
- [8*] Pattara Sukprasert, Quanquan C. Liu, Laxman Dhulipala, Julian Shun. Practical Parallel Algorithms for Near-Optimal Densest Subgraphs on Massive Graphs. 2022.
- [9*] Anxin Guo, Jingwei Li, Pattara Sukprasert, Samir Khuller, Amol Deshpande, Koyel Mukherjee. To Store or Not to Store: a graph theoretical approach for Dataset Versioning. 2022.
- [10] Jittat Fakchareonphol, Bundit Lekhanukit, **Pattara Sukprasert**. **Finding All Useless Arcs in Directed Planar Graphs**. arXiv 2017.

Relevant Activities

Teaching Experience

CS 336 Design & Analysis of Algorithms — Northwestern University	Spring 2020, Spring 2022
CMSC 132 Object-Oriented Programming II — University of Maryland	Spring 2019
CMSC 451 Design and Analysis of Computer Algorithms — University of Maryland	Fall 2018
CMSC 122 Intro to Programming via the Web — University of Maryland	Fall 2017 and Spring 2018 $$
Computers & Programming class — Kasetsart University (Thailand)	2014
International Olympiad in Informatics (IOI) Training Camp	2013 - 2017
— The institute for the Promotion of Teaching Science and Technology (Thailand)	

Reviewers

ACDA'23, AISTATS'23, Algorithmica, ALENEX'23, SODA'23, WADS'21, STOC'21, SODA'21, SOSA'20, ESA'19

Community Services

Algorithm Coffee — Northwestern University

Winter 2022, Spring 2022

Organize weekly CS theory seminar talks from faculty/student researchers.

STOC 2021 June 2021

Student volunteer - Helped making talks available online.

STOC 2020 June 2020

Student volunteer - Be a technical host for a conference session as well as made talks available online.

ALGO 2018 August 2018

Member of the organizing committee - Developed and implemented a software solution used as the conference's timer.

ACM-ICPC — Thailand 2012 - 2016

Prepared problem sets and managed an online-judge system of several ICPC programming contests held by Universities in Thailand. The latest one was ACM-ICPC Asia Bangkok Regional Contest 2016.

Thailand Code Jom — NECTEC and Kasetsart University (Thailand)

2013 - 2014

Prepared problem sets for Thailand Code Jom, an annual national programming contest for high-school and undergraduate students.

The 23rd International Olympiad in Informatics — Thailand

2011

Volunteer - organized the event and looked after international contestants from 78 countries around the world.

AWARDS

Dean's Fellowship	2017 - 2018
ACM-ICPC Asia Phuket Regional - 7^{th} place	2011
ACM-ICPC Thailand National Contest - Three times winner	2010 - 2012
ACM-ICPC Asia Regional Contests - 7 times Honorable mentioned	2009 - 2012
IEEEXtreme 5.0 - Grand prize winner	2011
Asia-Pacific Informatics Olympiad - Bronze Medal	2009