Titipat Achakulvisut

Personal Information	Tenure track lecturer Department of Biomedical Engineering Mahidol University 999 Phutthamonthon 4 Road, Salaya, Nakhon Pathom, Thailand 73170	□ Google Scholar □ my.titipat@gmail.com □ github.com/titipata □ biodatlab.github.io □ titipata
Interests	Science of Science, Applied Machine Learning, Text Mining, Natural Language Processing, Content-based and Personalized Recommendation System, Medical Electronic Health Records	
EDUCATION	University of Pennsylvania, Philadelphia, PA, USA Ph.D., Bioengineering	2017 - 2021 (GPA $3.97/4.0$)
	Northwestern University, Evanston, IL, USA M.S., Biomedical Engineering	2013 - 2017 (GPA $3.95/4.0$)
	Chulalongkorn University , Bangkok, Thailand B.Eng, Electrical Engineering, <i>First Class Honors</i>	2008 - 2012 (GPA $3.87/4.0$)
GRANTS & FELLOWSHIPS	Thre Bill Banders, developing count similar in artificial intermediate	
	Thailand Youth Start-Up Grant	2021
	Microsoft Azure Research Award \$20,000	2015 - 2016
	Royal Thai Government Scholarship, Ministry of Science a	and Technology 2012 – 2020
Positions	Academic Advisor at Looloo Technology, Thailand	
	Academic Advisor at Meticuly Co., Ltd., Thailand	$2022-{ m present}$
	MU Hackathon, Large Language Models for Health Care and Hospital Services Google Summer of Code/INCF Mentor	
	Organizing committee at Machine Learning Research Scho	ool 2023
Organizing committee, iNT MU Developer Bootcamp Data Science track, Mahidol Uni		a Science track, Mahidol University 2022
	Program committee at International Society for Computational Biology	
	Co-founder and organizer at Neuromatch Conference	2020
	Online Co-chair at Asian Conference on Machine Learning	
	National Institute of Health Special Volunteer	2016 - 2021
	Organizer at ACML Workshop on Machine Learning in Th	nailand 2020
RESEARCH EXPERIENCE	Allen Institute for Artificial Intelligence Intership Mentor: Chandra Bhagavatula Research: Scientific Claim Indentification and Evidence A	Spring 2017
	Research Intern AIM Laboratory, Department of Biomedical Engineering Mahidol University, Salaya, Thailand	2012 – 2013

Undergraduate Research

DSPRL Laboratory, Department of Electrical Engineering

Chulalongkorn University, Bangkok, Thailand

Advisor: Nisachon Tangsangiumvisai

Research: Adaptive Filter and Noise Reduction Algorithm

AND PROCEEDINGS

JOURNAL ARTICLES Hayat, M., Armvith, S., & Achakulvisut, T. (2023, October). Combined Channel and Spatial Attention-based Stereo Endoscopic Image Super-Resolution. In TENCON 2023-2023 IEEE Region 10 Conference (TENCON) (pp. 920-925). IEEE.

> Chotayapa, K., Leethamchayo, T., Chinnawong, P., Samernate, T., Nonejuie, P., & Achakulvisut, T. (2023, October). Deep Learning-Based Object Detection And Bacteria Morphological Feature Extraction For Antibiotic Mode Of Action Study. In 2023 15th Biomedical Engineering International Conference (BMEiCON) (pp. 1-5). IEEE.

> Promja S, Puenpa J, Achakulvisut T, Poovorawan Y, Lee SY, Athamanolap P, Lertanantawong B. (2023). Machine learning-assisted real-time polymerase chain reaction and high-resolution melt analysis for SARS-CoV-2 variant identification. Analytical chemistry, 95(3), 2102-2109.

> Aung ZH, Srithaworn K, and Achakulvisut T. (2022) Multitask learning via pseudo-label generation and ensemble prediction for parasitic egg cell detection: IEEE ICIP Challenge 2022. 2022 IEEE International Conference on Image Processing (ICIP). IEEE.

> t Hart, Bernard Marius, et al. (2022), Neuromatch Academy: a 3-week, online summer school in computational neuroscience.

> C Polpanumas et al. (2021) AI builders: Teaching Thai students to build end-to-end machine learning projects online. In 2021 IEEE International Conference on Engineering, Technology & Education (TALE), pp. 565-572. IEEE.

> T Achakulvisut, T Ruangrong, P Mineault, TP Vogels, MAK Peters, P Poirazi, C Rozell, B Wyble, D Goodman, KP Kording (2021) Towards Democratizing and Automating Online Conferences: Lessons from the Neuromatch Conferences. Trends in Cognitive Sciences

> T van Viegen et al. (2021), Neuromatch Academy: Teaching Computational Neuroscience with global accessibility. Trends in Cognitive Sciences 25 (7), 535-538

> Achakulvisut T, Ruangrong T, Acuna DE, Wyble B, Goodman D, Kording K (2020) neuromatch: Algorithms to match scientists. eLife Labs

> T Achakulvisut, T Ruangrong, I Bilgin, S Van Den Bossche, B Wyble, D Goodman, K Kording (2020), Improving on legacy conferences by moving online. eLife

> T Achakulvisut, DE Acuna, K Kording (2020) Pubmed parser: a Python parser for PubMed Open-Access XML subset and MEDLINE XML dataset XML dataset. Journal of Open Source Software (see on $\mathbf{\overline{o}}$)

> M Jas et al. (2020) Pyglmnet: Python implementation of elastic-net regularized generalized linear models. Journal of Open Source Software (see on **5**)

> Achakulvisut T, Bhagavatula C, Acuna D, Kording K (2019) Claim extraction in biomedical publications using deep discourse model and transfer learning. arXiv preprint arXiv:1907.00962 (see on **5**)

> Kittinaradorn R, Achakulvisut T, Chaovavanich K, Srithaworn K, P Chormai, C Kaewkasi, T Ruangrong, K Oparad K (2019) Deep Cut: A Thai word tokenization library using Deep Neural Network. Github (see on **5**)

> Lienard JF, Achakulvisut T, Acuna DE, David SV (2018) Intellectual Synthesis in Mentorship Determines Success in Academic Careers. Nature communications

> Achakulvisut T, Acuna DE, Ruangrong T, Kording K (2016) Science Concierge: A Fast Content-Based Recommendation System for Scientific Publications. PLOS ONE 11(7): e0158423. doi:10.1371/journal.pone.0158423 (see on **5**)

Talks	Hands-on Deep Learning with Pytorch, Learn AI workshop	August 2023	
	Bioinformatic Institute, A*Star, Singapore	July 2023	
	AI for Medicine Workshop, Reinventing University, Mahidol University	June 2023	
	Department of Biomedical Engineering, Mahidol University, Salaya	March 2021	
	AI generates Thai lyrics, Bangkok Music City	October 2020	
	Natural Language and its application, Srinakharinwirot University, Bangkok	October 2020	
	Data Science in e-commerce, Knowledge Exchange, Bangkok	August 2020	
	Growth Lab, Harvard, University, Boston	April 2019	
	Python Data Science Meetup, Hangar, Bangkok	August 2017	
	Python Meetup Seattle (Puppy), Zillow, Seattle	June 2017	
	Brain and Behaviour lab, Imperial College London	September 2016	
	Data visualization judging panel, Northwestern Computational Research day	April 2016	
	HAMLET group, University of Wisconsin at Madison, Madison	March 2016	
	ChiPy (Chicago Python community), Bank of America, Chicago	February 2016	
	Knowledge Lab, University of Chicago, Chicago	November 2015	
	SONIC lab, Northwestern University, Chicago	April 2015	
Conferences	T. Achakulvisut, D. E. Acuna, K. P. Kording, Clustering conference abstracts using a combination of author preferences and topic relevance, Knowledge of Network Science Conference		
	D. E. Acuna, T. Achakulvisut, K. P. Kording How to visit 0.5% of 15,000 possible posters? Automated poster visit scheduler for SfN Society for Neuroscience conference		
	D. E. Acuna, T. Achakulvisut, K. P. Kording Automatic Paper-Reviewer Assignment and Manuscript Scoring Science of Team Science conference	June 2015	
Awards	1^{st} place at SuperAI Engineer Hackathon, Liver Lesions Dectection Based on Ultrasound Image 2023		
	2^{nd} place at Bangkok Datathon, Analyzing Bangkok Budget	2020	
	2^{nd} place student case competition, Wharton People Analytics Conference	2018	
	2 nd place in Data Visualization Competition, Northwestern Computational Research day 2015		
	Outstanding Academic Performance in Engineering Nominated candidate for the Ananda Mahidol Scholarship	2008 - 2012	
	SCG Innovative Suggestion Award	2012 2011	
	1^{st} place in Mathematics Entrance Exam, ONET, Thailand	2011	
	- F Management Emily (1121, Indiana	2300	
Computer Skills	Programming and Scripting Languages:		

Advanced: Python, Apache Spark, MATLAB, Mathematica

Intermediate: Julia, HTML, CSS, JavaScript, Java, R, C, AngularJS, Scala

Cloud Computing: Amazon EC2, Google Cloud Computing, Microsoft Azure

Operating Systems: Mac OS X, Linux, Windows

LANGUAGES Thai (Native), English (Proficient)