Titipat Achakulvisut

Personal Information

Tenure track lecturer
Department of Biomedical Engineering
Mahidol University
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Google Scholar
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Lab website
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 — 2017 – 2021
Ph.D., Bioengineering — (GPA 3.97/4.0)

Northwestern University, Evanston, IL, USA — 2013 – 2017
M.S./Ph.D., Biomedical Engineering — (GPA 3.95/4.0)

Chulalongkorn University, Bangkok, Thailand — 2008 – 2012
B.Eng, Electrical Engineering, *First Class Honors* — (GPA 3.87/4.0)

Grants & Fellowships

DARPA Systematizing Confidence in Open Research and Evidence funding — 2020 – 2022
Thailand Youth Start-Up Grant — 2021
Microsoft Azure Research Award $20,000 — 2015 – 2016
Royal Thai Government Scholarship, Ministry of Science and Technology — 2012 – 2020

Positions

Co-founder of Neuromatch Conference
Online Co-chair Asian Conference on Machine Learning — 2021
National Institute of Health Special Volunteer — 2016 – 2021

Research Experience

Allen Institute for Artificial Intelligence Intership — Spring 2017
Mentor: Chandra Bhagavatula
Research: Scientific Claim Indentification and Evidence Alignment

Research Intern — 2012 – 2013
AIM Laboratory, Department of Biomedical Engineering
Mahidol University, Salaya, Thailand

Undergraduate Research — 2011 – 2012
DSPRL Laboratory, Department of Electrical Engineering
Chulalongkorn University, Bangkok, Thailand
Advisor: Nisachon Tangsangiumvisai
Research: Adaptive Filter and Noise Reduction Algorithm

Talks

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

Journal Articles

T Achakulvisut, T Ruangrong, P Mineault, TP Vogels, MAK Peters, P Poirazi, C Rozell, B Wyble, D Goodman, KP Kording (2020) *Towards Democratizing and Automating Online Conferences: Lessons from the Neuromatch Conferences.* Trends in Cognitive Sciences

T van Viegen et al. (2020), *Neuromatch Academy: Teaching Computational Neuroscience with global accessibility.* arXiv preprint (see on)

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, 2020

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)

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

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)

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

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)

Conferences

T. Achakulvisut, D. E. Acuna, K. P. Kording, — July 2017
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 — October 2015
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 — June 2015
Automatic Paper-Reviewer Assignment and Manuscript Scoring
Science of Team Science conference

Projects

Scholarfy - content-based recommendation for MEDLINE dataset
Recommendation system web application to search 28 million publications from MEDLINE dataset

Machine Learning facilitates Neuroscience Conferences
One-on-one matching algorithm for CCN conference, Paper-reviewer matching for COSYNE conference, Content-based recommnedation engine for SfN conference

Awards & Fellowships

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	2008 – 2012
Nominated candidate for the Ananda Mahidol Scholarship	2012
SCG Innovative Suggestion Award	2011
1^{st} place in Mathematics Entrance Exam, ONET, Thailand	2008

Selected Extracurricular Activities

AI Builders: Teaching AI to high school students in Thailand	2021
Summer School in Computational Sensory-Motor Neuroscience (CoSMo)	2014
Brain Fair, Northwestern University Brain Awareness Outreach	2014
NECTEC Electronics Camp: Teaching electronics to high school students	2010
Teaching basic science in remote areas of Thailand	2008 – 2010
Head of Freshmen Tutorial Project: Teaching basic science for freshmen	2009
Physics Olympiad Camp	2006 – 2007

Computer Skills

Programming and Scripting Languages:
Advanced: Python, Apache Spark, MATLAB, Mathematica
Intermediate: Julia, HTML, CSS, JavaScript, Java, R, C, AngularJS, Scala
Others: LaTeX, Emacs, Git, Adobe Illustrator, Microsoft Office
Cloud Computing: Amazon EC2, Google Cloud Computing, Microsoft Azure
Operating Systems: Mac OS X, Linux, Windows

Languages

Thai (Native), English (Proficient)