



Kristina P. Sinaga

ACTIVELY SEEKING POSTDOCTORAL OPPORTUNITIES · PHD IN APPLIED MATHEMATICS

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<https://www.linkedin.com/in/kristina-p-sinaga-007925245/Kristina P. Sinaga> | 🎓 Kristina P. Sinaga

"Be the change that you want to see in the world."

Summary

I received my PhD in Applied Mathematics in June 2020 and have since worked as a lecturer at a private university in Indonesia. I have a passion for intelligent pattern recognition algorithms and a track record of success in developing algorithms for single and multi-view learning. I have a strong background in machine learning techniques, including classification, feature selection/reduction, parameter estimation, regression, and clustering, and I am well-versed in data analysis and model validation. I am also proficient in tools such as Matlab, Python, and R, which I have used to prototype solutions for testing algorithms on large data sets.

Work Experience

Bina Nusantara University

West Jakarta, Indonesia

LECTURER/FACULTY MEMBER

Nov. 2020 - May 2022

- Developed course materials and curriculum.
- Stimulating meaningful discussions during classes.
- Attended international conferences.
- Conferred with other researchers and professionals.
- Guided/taught undergraduate and graduate students.
- Graded assignments.
- Served as a member of the University.

Chung Yuan Christian University

Taoyuan, Taiwan

PHD STUDENT RESEARCHER

Sep. 2016 - Jun. 2020

- Conducted research to produce new knowledge, applications or insights at the cutting edge of the discipline.
- Adapted the research plan in light of unexpected problems.
- Developed algorithms for single and multi-view learning.

Education

CYCU (Chung Yuan Christian University)

Taoyuan, Taiwan

PH.D. IN APPLIED MATHEMATICS

Sep. 2016 - Jun. 2020

- Thesis title: : Multi-View Fuzzy Clustering Algorithms for Multi-View Data
- Advisor: Prof. Miin-Shen Yang
- CGPA: 3.842
- Got CYCU International Student Scholarship which is given to the top 25% students of their department academically.
- Attended dozens of seminars by experts in computational mathematics, scientific computing, and/or data science.
- Developing friendly unsupervised learning algorithms like relational mountain clustering method (ICAISC 2018), k-means (IEEE Access 2019, IEEE Access 2020, IEEE Access 2021), and Fuzzy c-means (Pattern Recognition 2021) to give high-quality results and support intelligent action, such as determining the number of clusters, feature selection, feature reduction, and collaborative learning.
- Worked as a part-time teacher in the YinFuBan Program of the university.

USU (University of Sumatera Utara)

Medan, Indonesia

MS. IN MATHEMATICS

Dec. 2013 - Dec 2015

- Thesis title: Model Optimasi Stokastik Penentuan Lokasi dan Jumlah Ambulan dengan Korelasi (in Bahasa Indonesia)
- CGPA: 3.78
- Advisors: Prof. Herman Mawengkang and Dr. Esther Nababan

USU (University of Sumatera Utara)

Medan, Indonesia

B.S. IN MATHEMATICS

Aug. 2011 - Aug. 2013

- Thesis title: Analisis Pengaruh Produk Domestik Regional Bruto, Pendidikan dan Pengangguran terhadap Kemiskinan di Kabupaten/Kota Propinsi Sumatera Utara (in Bahasa Indonesia)
- CGPA: 3.30
- Advisors: Prof. Tulus and Dr. Open Darnius

Honors & Awards

INTERNATIONAL

2020	Honorary member , The Phi Tau Phi Scholastic Honor Society of The Republic of China	CYCU, Taiwan
2019	Recipient , MOST Travel Grant	Taipei, Taiwan
2018	Recipient , Japan Science and Technology Agency (JST)	Niigata, Japan
2017	Recipient , Japan Student Service Organization (JASSO)	Niigata, Japan
2016	Recipient , CYCU International Student Scholarship	CYCU, Taiwan

Certifications

2022	Coursera-DeepLearning.AI TensorFlow Developer Professional , Instructor: Laurence Moroney	Online Courses
2022	Coursera-Machine Learning Specialization , Instructor: Andrew Ng	Online Courses
2020	Coursera-Learning to Teach Online , Instructor: Associate Professor Simon McIntyre & Dr Negin Mirriah	Online Courses

Professional Service

IEEE Access, IEEE TKDE, Information Fusion, Applied Soft Computing, WCCI2022, and IJCNN2023

Dec 2020 - Present

INVITED REVIEWER

- Responsible for critiquing by reading and evaluating manuscripts in the field of expertise.
- Gave constructive advice and honest feedback to the author of the article submitted.
- Discussed the strengths and weaknesses of the article, how to increase the strength and quality of the paper.
- Evaluated the relevance and authenticity of the manuscript.

IEEE SPS & CIS

Dec. 2020 - Dec. 2021

MEMBER

- The world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.
- Attended a lot of online events and activities

Presentation

2021 3rd International Conference on Cybernetics and Intelligent System (ICORIS)

Virtual

PRESENTER FOR <TELECOMMUNICATION ANALYTICS BASED ON CUSTOMER SEGMENTATION USING UNSUPERVISED ALGORITHMS>

Oct. 2021

- Introduced seven different unsupervised algorithms for solving the most crucial assets for a business in numerous dynamic and competitive telecommunication companies within a marketplace, which the data available in Kaggle.

2021 3rd International Conference on Cybernetics and Intelligent System (ICORIS)

Virtual

PRESENTER FOR <TELECOMMUNICATION ANALYTICS BASED ON CUSTOMER SEGMENTATION USING UNSUPERVISED ALGORITHMS>

Oct. 2021

- Introduced three classification (Decision Tree, Naïve Bayes, and Random Forest) and clustering (K-Means, K-Medoids, and DBSCAN) methods to predict whether their clients would subscribe to a term deposit or not.

The 6th International Conference on Soft Computing in Data Science 2021 (SCDS2021)

Virtual

PRESENTER FOR <ANALYTICS-BASED ON CLASSIFICATION AND CLUSTERING METHODS FOR LOCAL COMMUNITY EMPOWERMENT

Aug. 2021

IN INDONESIA>

- Introduced the best method to measure the people's level of understanding and perception towards PNPM RESPEK' program.

The 17th International Conference on Artificial Intelligence and Soft Computing ICAISC 2018)

Zakopane, Polandia

PRESENTER FOR <MODIFIED RELATIONAL MOUNTAIN CLUSTERING METHOD>

Jun. 2018

- Introduced a modified RMCM (M-RMCM)

Teaching Experience

Graduate Course

Binus University, Indonesia

BUSINESS INTELLIGENCE AND ANALYTICS

Nov. 2020 - Apr. 2022

- Odd and even semesters 2021
- Odd and even semesters 2020

Undergraduate Course

Binus University, Indonesia

DISCRETE MATHEMATICS & CALCULUS I

Sep. 2021 - Ap. 2022

- Odd and even semesters 2021