Kristina P. Sinaga

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

"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.serving as a member of the University.
- 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   *Sept. 2016 - Jun. 2020*

- Thesis title: : Multi-View Fuzzy Clustering Algorithms for Multi-View Data
- Advisor: Prof. Miin-Shen Yang
- Grade: 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)
- Grade: CGPA: 3.78
- Advisor: 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)
- Grade: CGPA: 3.30
- Advisor: Prof. Tulus and Dr. Open Darnius

Honors & Awards

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

- Responsibled 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 IN INDONESIA> — *Aug. 2021*

- 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
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Undergraduate Course — *Binus University, Indonesia*

DISCRETE MATHEMATICS & CALCULUS I — *Sep. 2021 - Ap. 2022*

- Odd and even semesters 2021