Kristina P. **Sinaga**

kristinaps25 | Kristina P. Sinaga | Kristina P. Sinaga

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

Summary

I earned my PhD in Applied Mathematics, in June 2020. I am very passionate about developing intelligent pattern recognition algorithms, especially for single and multi-view learning. I have a proven track record of success in this area and am proficient in various machine learning techniques, including classification, feature selection/reduction, parameter estimation, regression, and clustering. To test my proposed algorithms on large dataset, mostly I used programming tools like Matlab, Python, and R. Currently, I am learning and focusing in developing clustering algorithm using tensor-based approaches.

Work Experience

Chung Yuan Christian University

Taoyuan, Taiwan

Post-Doctorate Fellow

March 2023 - Present

- Develop novel algorithms for clustering or tensor-based clustering that can be applied to large, complex data sets (Multi-view data).
- Publish research findings in high-impact journals.

Lecturer

Jakarta, Indonesia

Nov. 2020 - April 2022

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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
- 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*