

## PERSONAL DATA



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## PUBLICATIONS SUMMARY

7

International Journal

1

International. Proceedings

Total Publications: 8

## EDUCATION

<b>Ph.D. Degree</b>	2014 – 2017	Ph.D. in Computer Science, Ecole doctorale Sciences physiques pour l'ingénieur et microtechniques, Université Bourgogne Franche-Comté, Besançon, France
<b>Master Degree</b>	2008 – 2010	M.Sc. in Bioinformatics, School of Bioresources and Technology and School of Information Technology, King Mongkut's University of Technology Thonburi, Thailand.
<b>Bachelor Degree</b>	2003 – 2007	B.Sc. in Information Technology, Department of Information Technology, Faculty of Technology and Environment, Prince of Songkla University - Phuket Campus, Thailand.

## RESEARCH INTERESTS

*Bioinformatics*

*Business Intelligence*

*Data Science*

## RESEARCH PROJECTS

Bioinformatics analysis of the global outbreak of *Pseudomonas aeruginosa* clone ST235  
panISa: a software to search insertion sequence (IS) on resequencing data  
(<https://github.com/bvalot/panISa>)

## TEACHING

- Business Intelligence (ปัญญาทางธุรกิจ)
- Data Visualization (การสร้างภาพนามธรรมข้อมูล)
- Introduction to Computer Programming (การเขียนโปรแกรมคอมพิวเตอร์เบื้องต้น)
- Database Systems (ระบบฐานข้อมูล)
- Database System for Software Engineering (ระบบฐานข้อมูลสำหรับวิศวกรรมซอฟต์แวร์)
- Data Structures and Algorithms (โครงสร้างข้อมูลและอัลกอริทึม)
- Data Mining (เหมืองข้อมูล)
- Data Warehousing and Data Mining (คลังข้อมูลและเหมืองข้อมูล)
- Information Retrieval (การค้นคืนสารสนเทศ)
- Organization and Management (องค์กรและการจัดการ)
- Computer and Internet Technology (คอมพิวเตอร์และเทคโนโลยีอินเทอร์เน็ต)

## INTERNATIONAL JOURNAL ARTICLES

N. Theera-Ampornpant and P. Treepong, " Visual Food Ingredient Prediction Using Deep Learning with Direct F-Score Optimization," *Foods*, vol. 14, no. 24, Dec. 2025, Art. no. 4269, doi: 10.3390/foods14244269.

📄 <https://www.mdpi.com/2304-8158/14/24/4269>

📅 12/2025 📌 F-score optimization, loss function, Deep learning, food ingredient prediction, image classification, cost-sensitive learning

N. Theera-Ampornpant and P. Treepong, "KediNet: a hybrid deep learning architecture for Thai dessert recognition," *IEEE Access*, vol. 13, pp. 86935–86948, 2025, doi: 10.1109/ACCESS.2025.3569435.

📄 <https://ieeexplore.ieee.org/document/11002498>

📅 5/2025 📌 Deep learning, food recognition, image classification, dessert

N. Theera-Ampornpant and P. Treepong, "Thai food recognition using deep learning with cyclical learning rates," *IEEE Access*, vol. 12, pp. 174204-174221, 2024, doi: 10.1109/ACCESS.2024.3503672.

📄 <https://ieeexplore.ieee.org/document/10759670>

📅 10/2024 📌 Deep learning, food dataset, food recognition, image classification, learning rate

P. Treepong, N. Theera-Ampornpant, "Early Bread Mold Detection Through Microscopic Images Using Convolutional Neural Network," *Current Research in Food Science*, vol. 7, Aug. 2023, Art. no. 100574.

📄 <https://www.sciencedirect.com/science/article/pii/S2665927123001429>

📅 8/2023 📌 image classification, Microbiology, food safety, food computing

N. Theera-Ampornpant, P. Treepong, "Optimizing Hyperparameters for Thai Cuisine Recognition via Convolutional Neural Networks," *Traitement du Signal*, vol. 40, no. 3, pp. 1187–1193, 2023.

📄 <https://iieta.org/download/file/fid/100033>

📅 6/2023 📌 food computing, image recognition, object recognition, Thai food

P. Treepong, C. Guyeux, A. Meunier, C. Couchoud, D. Hocquet, and B. Valot, "panISa: ab initio detection of insertion sequences in bacterial genomes from short read sequence data," *Bioinformatics*, vol. 34, pp.

3795–3800, 2018.

🔗 <https://doi.org/10.1093/bioinformatics/bty479>

📅 11/2018 📌 *Mathematical & Computational Biology, Biotechnology & Applied Microbiology, Biochemical Research Methods*

P. Treepong, V.N. Kos, C. Guyeux, D.S. Blanc, X. Bertrand, B. Valot, D. Hocquet, “Global emergence of the widespread *Pseudomonas aeruginosa* ST235 clone”, *Clinical Microbiology and Infection*, vol.24, no.3. pp.258–266, 2018.

🔗 <https://doi.org/10.1016/j.cmi.2017.06.018>

📅 3/2018 📌 *Medicine, Infectious Diseases, Microbiology*

## INTERNATIONAL PROCEEDINGS

P. Treepong, S. Prom-on, J. H. Chan, A. Meechai, N.Hirankarn, “Effects of RNA Quality on Gene Expression Functional Profiles”, 14th International Annual Symposium on Computational Science and Engineering (ANSCSE14), Mae Fah Luang University, Chiang Rai, Thailand, pp. 65-70, 2010.

📅 1/2010

## AWARDS

2014 - 2017 Ph.D. scholarship from Prince of Songkla University.

2008 - 2010 Full scholarship, Master’s Degree in Bioinformatics, King Mongkut’s University of Technology Thonburi, Thailand.

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COLLEGE OF COMPUTING

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