

# Curriculum Vitae

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## Education

Degree	Date	School
Ph.D. in Computer Science Dissertation: <i>Improving Failure Management through Cooperation between Mobile Devices and Cellular Network</i>	Aug 2017	Purdue University
B.S. in Computer Science (with honors)	May 2009	Carnegie Mellon University

## Professional Experience

Jan 2021 – present	<b>Assistant Professor</b> , Prince of Songkla University, Phuket Campus, Thailand
Aug 2017 – Dec 2020	<b>Lecturer</b> , Prince of Songkla University, Phuket Campus, Thailand
Jun – Aug 2013	<b>Student Research Intern</b> , AT&T Labs Research Mentors: Kaustubh Joshi and Rajesh Panta Project: Improving Dependability of Cellular Services through Cooperation between Devices and Network
Jan 2010 – May 2013	<b>Graduate Research Assistant</b> Advisors: Prof. Saurabh Bagchi and Prof. Samuel Midkiff School of Electrical and Computer Engineering, Purdue University

## Publications

- [1] P. Treepong, N. Theera-Ampornpunt, “Early bread mold detection through microscopic images using convolutional neural network,” *Current Research in Food Science*, vol. 7, Aug. 2023, Art. no. 100574.
- [2] N. Theera-Ampornpunt, P. Treepong, “Optimizing hyperparameters for Thai cuisine recognition via convolutional neural networks,” *Traitement du Signal*, vol. 40, no. 3, pp. 1187–1193, 2023.
- [3] N. Theera-Ampornpunt, S. Suryavansh, S. Manchanda, R. Panta, K. Joshi, M. Ammar, M. Chiang, S. Bagchi, “AppStreamer: reducing storage requirements of mobile

games through predictive streaming,” in *Proceedings of the International Conference on Embedded Wireless Systems Networks*, Lyon, France, Feb. 2020, pp. 37–48.

[4] C. Fang, N. Theera-Ampornpant, M. A. Roth, A. Grama, and S. Chaterji, “AIKYATAN: mapping distal regulatory elements using convolutional learning on GPU,” *BMC Bioinformatics*, vol. 20, pp. 1–17, Oct. 2019.

[5] K. Dittakan, N. Theera-Ampornpant, and P. Boodliam, “Non-destructive grading of Pattavia pineapple using texture analysis,” in *Proceedings of the 21st International Symposium on Wireless Personal Multimedia Communications*, Chiang Rai, Thailand, Nov. 2018, pp. 144–149.

[6] K. Dittakan and N. Theera-Ampornpant, “Pum-Riang Thai silk pattern classification using texture analysis,” in *Proceedings of the 15th Pacific Rim International Conference on Artificial Intelligence*, Nanjing, China, Aug. 2018, pp. 82–90.

[7] N. Theera-Ampornpant and S. Chaterji, “Prediction of enhancer RNA activity levels from ChIP-seq-derived histone modification combinatorial codes,” in *IEEE Workshop Deep Learning in Bioinformatics, Biomedicine, and Healthcare Informatics*, Kansas City, MO, USA, Nov. 2017, pp. 1206–1214.

[8] H. Zhang, N. Theera-Ampornpant, H. Wang, S. Bagchi, and R. Panta, “Sense-Aid: a framework for enabling network as a service for participatory sensing,” in *Proceedings of the 18th ACM/IFIP/USENIX Middleware Conference*, Las Vegas, Nevada, USA, Dec. 2017, pp. 68–80.

[9] K. Dittakan, N. Theera-Ampornpant, W. Witthayarat, S. Hinnoy, S. Klaiwan, and T. Pratheep, “Banana cultivar classification using scale invariant shape analysis,” in *Proceedings of the 2nd International Conference on Information Technology*, Nakhon Pathom, Thailand, Nov. 2017, pp. 171–176.

[10] N. Theera-Ampornpant, T. Mangla, S. Bagchi, R. Panta, K. Joshi, M. Ammar, and E. Zegura, “TANGO: toward a more reliable mobile streaming through cooperation between cellular network and mobile devices,” in *Proceedings of the 35th Symposium on Reliable Distributed Systems*, Budapest, Hungary, Sep. 2016, pp. 297–306.

[11] S. G. Kim, N. Theera-Ampornpant, C. Fang, M. Harwani, A. Grama and S. Chaterji, “Opening up the blackbox: an interpretable deep neural network-based classifier for cell-type specific enhancer predictions,” *BMC Systems Biology*, vol. 10, no. 2, pp. 243–258, Aug. 2016.

[12] T. Mangla, N. Theera-Ampornpant, M. Ammar, E. Zegura, and S. Bagchi, “Video through a crystal ball: effect of bandwidth prediction quality on adaptive streaming in mobile environments,” in *Proceedings of the 8th ACM Workshop on Mobile Video*, Klagenfurt am Wörthersee, Austria, May 2016, pp. 1–6.

- [13] N. Theera-Ampornpunt, S. G. Kim, A. Ghoshal, S. Bagchi, A. Grama, and S. Chaterji, “Fast training on large genomics data using distributed support vector machines,” in *proceedings of the 8th International Conference on Communication Systems and Networks*, Bangalore, India, Jan. 2016, pp. 1–8.
- [14] S. G. Kim, N. Theera-Ampornpunt, A. Grama, and S. Chaterji, “Interpretable deep neural networks for enhancer prediction,” in *Proceedings of the 2015 IEEE International Conference on BioInformation and BioMedicine*, Washington, DC, USA, Nov. 2015, pp. 242–249.
- [15] N. Theera-Ampornpunt, S. Bagchi, K. Joshi, and R. Panta, “Using big data for more dependability: a cellular network tale,” in *Proceedings of the 9th Workshop on Hot Topics in Dependable Systems*, Farmington, Pennsylvania, Nov. 2013, pp. 1–5.
- [16] I. Laguna, S. Mitra, F. Arshad, N. Theera-Ampornpunt, Z. Zhu, S. Bagchi, S. Midkiff, M. Kistler and A. Gheith, “Automatic problem localization in distributed applications via multi-dimensional metric profiling,” in *Proceedings of the 32nd International Symposium on Reliable Distributed Systems*, Braga, Portugal, Oct. 2013, pp. 121–132.
- [17] T. Tsai, N. Theera-Ampornpunt, and S. Bagchi, “A study of soft error consequences in hard drives,” in *Proceedings of the 42nd Annual IEEE/IFIP International Conference on Dependable Systems and Networks*, Boston, Massachusetts, USA, Jun. 2012, pp. 1–8.
- [18] N. Theera-Ampornpunt, B. Zhou, and S. Bagchi, “Predicting time to failure for large scale distributed systems, Fast Abstract in *Supplemental Proceedings of the 41st Annual IEEE/IFIP International Conference on Dependable Systems and Networks*, Hong Kong, China, Jun. 2011, pp. 27–30.
- [19] S.V.N. Vishwanathan, Z. Sun, N. Theera-Ampornpunt, and M. Varma, “Multiple kernel learning and the SMO algorithm,” in *Advances in Neural Information Processing Systems 23*, Vancouver, Canada, Dec. 2010, pp. 2361–2369.

## Awards and Honors

<b>November 2019</b>	First Runner up in Agoda Programming Competition 2019
<b>September 2013</b>	Awarded SOSP Student Scholarship to attend SOSP 2013
<b>May 2009</b>	Selected as member of Phi Beta Kappa Honor Society
<b>Fall 2005 – Spring 2008</b>	Carnegie Mellon University School of Computer Science Dean's List
<b>Fall 2004 – Aug 2017</b>	Awarded scholarship for B.S. to Ph.D. studies in Computer Science from Royal Thai Government

**August 2003**

Awarded silver medal in International Olympiad in Informatics held in Madison, Wisconsin as one of four Thailand's representatives