Assoc. Prof. Peerapon Vateekul, Ph.D.

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# Research

* Deep Learning in Computer Vision, Natural Language Processing, Time Series Forecasting
* Data Mining & Machine Learning
* Interdisciplinary Data Science in Healthcare and Meteorological-Hydrological Applications
* Big Data Analysis, Business Intelligence, Statistical Analysis, Data Warehousing

# Education

**AUG 2007 – MAY 2012**

**University of Miami**, Florida, USA - **Ph.D.** in Electrical and Computer Engineering (GPA 4.00)

* Dissertation: “Hierarchical Multi-Label Classification: Going Beyond Generalization Trees”
* At Distributed Decision Environments Laboratory
* Advisor: Dr. Miroslav Kubat, Associate Professor

**JUN 2002 – NOV 2004**

**Kasetsart University**, Bangkok, TH - **M.Eng.** in Computer Engineering (GPA 3.52)

* Thesis: “DWORM: Distributed Text Retrieval Prototype on Grid Computing Environment”
* At MIKE Lab (Massive Information and Knowledge Engineering Laboratory)
* Advisor: Dr. Arnon Rungawang, Assistant Professor

**JUN 1998 – MAR 2002**

**Kasetsart University**, Bangkok, TH - **B.Eng.** in Computer Engineering (GPA 3.08)

* Project: “SEER: Server Monitoring”
* At ANREG Lab (Applied Network Research Group)
* Advisor: Surasak Sanguanpong, Associate Professor

# Awards

* The Royal Thai Government Scholarship for Doctoral Degree in Computer Engineering with Specialization in Data Mining and Machine Learning
* Year 2015:
  + Intania Honor Awards for Student Affairs
* Year 2014:
  + Visiting Professor at Architecture for Intelligence Lab (Numao Lab), Graduate School of Information Science and Technology, Department of Information and Physical Sciences, (Institute of Scientific and Industrial Research), Osaka University (June 30 – Aug 18, 2014)
  + Thailand Research Fund (TRF) (Accepted on 2014/03/28)
  + Ratchadaphiseksomphot Endowment Fund for New Faculty Member (Accepted on 2014/11/26)

# Publications (updated until 2020)

Journal Articles (12 journals)

* T. Panboonyuen, K. Jitkajornwanich, S. Lawawirojwong, P. Srestasathiern, and **P. Vateekul**, "Semantic Labeling in Remote Sensing Corpora Using Feature Fusion-Based Enhanced Global Convolutional Network with High-Resolution Representations and Depthwise Atrous Convolution," Remote Sensing, vol. 12, no. 8, p. 1233, 2020. (ISI Impact Factor = 3.244, Tier 1 in Earth and Planetary Sciences (miscellaneous))
* A. Jettakul, D. Wichadakul, and **P. Vateekul**, "Relation extraction between bacteria and biotopes from biomedical texts with attention mechanisms and domain-specific contextual representations," Bmc Bioinformatics, vol. 20, no. 1, p. 627, 2019. (ISI Impact Factor = 2.511, Tier1 in Computer Science Applications)
* T. Panboonyuen, K. Jitkajornwanich, S. Lawawirojwong, P. Srestasathiern, and **P. Vateekul**, "Semantic segmentation on remotely sensed images using an enhanced global convolutional network with channel attention and domain specific transfer learning," Remote Sensing, vol. 11, no. 1, p. 83, 2019. (ISI Impact Factor = 3.244, Tier 1 in Earth and Planetary Sciences (miscellaneous))
* M. SANAYHA and **P. VATEEKUL**, "Remaining Useful Life Prediction Using Enhanced Convolutional Neural Network on Multivariate Time Series Sensor Data," Walailak Journal of Science and Technology (WJST), vol. 16, no. 9, pp. 669-679, 2019. (Scopus Q4)
* M. KLUNGPORNKUN and P. VATEEKUL, "Hierarchical Text Categorization Using Level Based Neural Networks of Word Embedding Sequences with Sharing Layer Information," *Walailak Journal of Science and Technology (WJST),* vol. 16, no. 2, pp. 121-131, 2019. (Scopus Q4)
* N. Virojboonkiate, A. Chanakitkarnchok, **P. Vateekul**, and K. Rojviboonchai, "Public Transport Driver Identification System Using Histogram of Acceleration Data," Journal of Advanced Transportation, vol. 2019. (ISI Impact Factor = 1.983, ISI Q1)
* Teerapong Panboonyuen, Kulsawasd Jitkajornwanich, Siam Lawawirojwong, Panu Srestasathiern and **Peerapon Vateekul**, “Road Segmentation of Remotely-Sensed Images Using Deep Convolutional Neural Networks with Landscape Metrics and Conditional Random Fields,” Remote Sensing, 2017, 9(7), 680 (ISI Impact Factor = 3.244, Tier 1 in Earth and Planetary Sciences (miscellaneous))
* **Peerapon Vateekul**, Nattapong Thammasan, Koichi Moriyama, Kenichi Fukui, Masayuki Numao. "Item-Based Learning for Music Emotion Prediction Using EEG Data", Lecture Notes in Computer Science Volume 9953, pp 155-167, December 2016.
* Teerawit Choeikiwong and **Peerapon Vateekul**, “Two Stage Model to Detect and Rank Software Defects on Imbalanced and Scarcity Data Sets,” IAENG International Journal of Computer Science (IJCS), Volume 43, Issue 3, pp 344-355, August 2016.
* **Peerapon Vateekul**, Miroslav Kubat, and Kanoksri Sarinnapakorn, “Top-Down Optimized SVMs for Hierarchical Multi-Label Classification: A Case Study in Gene Function Prediction,” *Intelligent Data Analysis*, Volume 18, Issue 4, pp 717-738, June 2014.
* Peerapon Vateekul, Sareewan Dendamrongvit, and Miroslav Kubat, “Improving SVM Performance in Multi-Label Domains: Threshold Adjustment,” *International Journal on Artificial Intelligence Tools*, Volume 22, Issue 1, February (2013).
* Sareewan Dendamrongvit, **Peerapon Vateekul**, and Miroslav Kubat, "Irrelevant Features and Imbalanced Classes in Multi-label Text-Categorization Domains," *Intelligent Data Analysis*, Volume 15, Issue 6, pp 843-859, November (2011).

Conferences/Workshops

**[2020] (3 papers)**

* T. Horsuwan, K. Kanwatchara, **P. Vateekul**, and B. Kijsirikul, "A Comparative Study of Pretrained Language Models on Thai Social Text Categorization," in Asian Conference on Intelligent Information and Database Systems, 2020: Springer, Cham, pp. 63-75.
* S. Gobpradit and **P. Vateekul**, "Angiodysplasia Segmentation on Capsule Endoscopy Images Using AlbuNet with Squeeze-and-Excitation Blocks," in Asian Conference on Intelligent Information and Database Systems, 2020: Springer, Cham, pp. 283-293.
* T. Chiewhawan and **P. Vateekul**, "Stock Return Prediction Using Dual-Stage Attention Model with Stock Relation Inference," in Asian Conference on Intelligent Information and Database Systems, 2020: Springer, Cham, pp. 492-503.

**[2019] (10 papers)**

* T. Horsuwan, K. Kanwatchara, **P. Vateekul**, and B. Kijsirikul, "A Comparative Study of Pretrained Language Models on Thai Social Text Categorization," in Asian Conference on Intelligent Information and Database Systems, 2020: Springer, Cham, pp. 63-75.
* N. Thongniran, **P. Vateekul**, K. Jitkajornwanich, S. Lawawirojwong, and P. Srestasathiern, "Spatio-Temporal Deep Learning for Ocean Current Prediction Based on HF Radar Data," in 2019 16th International Joint Conference on Computer Science and Software Engineering (JCSSE), 2019: IEEE, pp. 254-259.
* N. Thongniran, K. Jitkajornwanich, S. Lawawirojwong, P. Srestasathiern, and **P. Vateekul**, "Combining Attentional CNN and GRU Networks for Ocean Current Prediction based on HF Radar Observations," in Proceedings of the 2019 8th International Conference on Computing and Pattern Recognition, 2019, pp. 440-446.
* C. Siridhipakul and **P. Vateekul**, "Multi-step Power Consumption Forecasting in Thailand Using Dual-Stage Attentional LSTM," in 2019 11th International Conference on Information Technology and Electrical Engineering (ICITEE), 2019: IEEE, pp. 1-6.
* V. Nussiri and **P. Vateekul**, "Food Image Categorization Using Attentional Bilinear Model," in 2019 11th International Conference on Information Technology and Electrical Engineering (ICITEE), 2019: IEEE, pp. 1-6.
* F. Manokij, K. Sarinnapakorn, and **P. Vateekul**, "Forecasting Thailand’s Precipitation with Cascading Model of CNN and GRU," in 2019 11th International Conference on Information Technology and Electrical Engineering (ICITEE), 2019: IEEE, pp. 1-6.
* W. Liyong and **P. Vateekul**, "Traffic Prediction Using Attentional Spatial-Temporal Deep Learning with Accident Embedding," in 2019 4th International Conference on Computational Intelligence and Applications (ICCIA), 2019: IEEE, pp. 98-103.
* W. Liyong and **P. Vateekul**, "Improve Traffic Prediction Using Accident Embedding on Ensemble Deep Neural Networks," in 2019 11th International Conference on Knowledge and Smart Technology (KST), 2019: IEEE, pp. 11-16.
* N. Krittayanawach and **P. Vateekul**, "Robust Compression Technique for YOLOv3 on Real-Time Vehicle Detection," in 2019 11th International Conference on Information Technology and Electrical Engineering (ICITEE), 2019: IEEE, pp. 1-6.
* Kantavat P, Kijsirikul B, Iwahori Y, Hayashi Y, Panboonyuen T, **Vateekul P**, et al., "Transportation Mobility Factor Extraction Using Image Recognition Techniques," in 2019 First International Conference on Smart Technology & Urban Development (STUD), 2019: IEEE, pp. 1-7.

**[2018] (10 paper)**

* I. Wichakam, T. Panboonyuen, C. Udomcharoenchaikit, and **P. Vateekul**, "Real-Time Polyps Segmentation for Colonoscopy Video Frames Using Compressed Fully Convolutional Network," in International Conference on Multimedia Modeling, 2018: Springer, Cham, pp. 393-404.
* I. Wichakam, J. Chayakulkheeree, and **P. Vateekul**, "Deep multi-label 3D ConvNet for breast cancer diagnosis in DBT with inversion augmentation," in Tenth International Conference on Digital Image Processing (ICDIP 2018), 2018, vol. 10806: International Society for Optics and Photonics, p. 108065P.
* E. Verasakulvong, **P. Vateekul**, A. Piyatumrong, and C. Sangkeettrakarn, "Online Emerging Topic Detection on Twitter Using Random Forest with Stock Indicator Features," in 2018 15th International Joint Conference on Computer Science and Software Engineering (JCSSE), 2018: IEEE, pp. 1-6.
* N. Tretasayuth, **P. Vateekul**, and P. Boonkwan, "Enhance Machine Reading Comprehension on Multiple Sentence Questions with Gated and Dense Coreference Information," in 2018 15th International Joint Conference on Computer Science and Software Engineering (JCSSE), 2018: IEEE, pp. 1-6.
* N. Sotthisopha and **P. Vateekul**, "Improving short text classification using fast semantic expansion on multichannel convolutional neural network," in 2018 19th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD), 2018: IEEE, pp. 182-187.
* C. Saetia and **P. Vateekul**, "Enhance Accuracy of Hierarchical Text Categorization Based on Deep Learning Network Using Embedding Strategies," in 2018 15th International Joint Conference on Computer Science and Software Engineering (JCSSE), 2018: IEEE, pp. 1-6.
* P. Oncharoen and **P. Vateekul**, "Deep learning for stock market prediction using event embedding and technical indicators," in 2018 5th International Conference on Advanced Informatics: Concept Theory and Applications (ICAICTA), 2018: IEEE, pp. 19-24.
* K. Kowsrihawat, **P. Vateekul**, and P. Boonkwan, "Predicting judicial decisions of criminal cases from thai supreme court using bi-directional GRU with attention mechanism," in 2018 5th Asian Conference on Defense Technology (ACDT), 2018: IEEE, pp. 50-55.
* K. Jitkajornwanich, C. Kongthong, N. Khongsoontornjaroen, J. Kaiyasuan, S. Lawawirojwong, P. Srestasathiern, S. Srisonphan, **P. Vateekul**, "Utilizing Twitter Data for Early Flood Warning in Thailand," in 2018 IEEE International Conference on Big Data (Big Data), 2018: IEEE, pp. 5165-5169.
* A. Jettakul, C. Thamjarat, K. Liaowongphuthorn, C. Udomcharoenchaikit, **P. Vateekul**, and P. Boonkwan, "A Comparative Study on Various Deep Learning Techniques for Thai NLP Lexical and Syntactic Tasks on Noisy Data," in 2018 15th International Joint Conference on Computer Science and Software Engineering (JCSSE), 2018: IEEE, pp. 1-6.

**[2017] (10 papers)**

* Kulsawasd Jitkajornwanich, **Peerapon Vateekul**, Teerapong Panboonyuen, Siam Lawawirojwong, Siwapon Srisonphan, “Road map extraction from satellite imagery using connected component analysis and landscape metrics”, 2017 IEEE International Conference on Big Data (Big Data 2017), December 11-14, 2017, Boston, MA, USA, pp. 3435-3442.
* Can Udomcharoenchaikit, **Peerapon Vateekul**, Prachya Boonkwan, “Thai Named-Entity Recognition Using Variational Long Short-Term Memory with Conditional Random Field”, International Joint Symposium on Artificial Intelligence and Natural Language Processing (iSAI-NLP 2017), 27-29 August 2017, Huahin, Cha-am, Thailand
* Nattachai Tretasayuth, **Peerapon Vateekul**, Prachya Boonkwan, “End-To-End Memory Network for QA with Multiple Relationships”, The 14th International Joint Conference on Computer Science and Software Engineering (JCSSE 2017), Nakhon Si Thammarat, Thailand, July 12-14 2017.
* Manassakan Sanayha and **Peerapon Vateekul**, “Remaining Useful Life Prediction of Machine Using Enhanced Deep Convolutional Neural Network”, The 14th International Joint Conference on Computer Science and Software Engineering (JCSSE 2017), Nakhon Si Thammarat, Thailand, July 12-14 2017.
* Mongkud Klungpornkun and **Peerapon Vateekul**, “Hierarchical Text Categorization Using Level Based Neural Networks of Word Embedding Sequences with Sharing Layer Information”, The 14th International Joint Conference on Computer Science and Software Engineering (JCSSE 2017), Nakhon Si Thammarat, Thailand, July 12-14 2017.
* Arnon Jirakittayakorn, Teeranai Kormongkolkul, **Peerapon Vateekul**, Kulsawasd Jitkajornwanich, and Siam Lawawirojwong, “Temporal kNN for Short-term Ocean Current Prediction Based on HF Radar Observations”, The 14th International Joint Conference on Computer Science and Software Engineering (JCSSE 2017), Nakhon Si Thammarat, Thailand, July 12-14 2017
* Thanabhat Koomsubha and **Peerapon Vateekul**, “A Character-level Convolutional Neural Network with Dynamic Input Length for Thai Text Categorization”, KST2017, Pattaya, Chon Buri, Thailand, February 1-4 2017.
* Suthipong Daengduang, **Peerapon Vateekul**, “Applying One-Versus-One SVMs to Classify Multi-Label Data with Large Labels Using Spark”, KST2017, Pattaya, Chon Buri, Thailand, February 1-4 2017.
* Tanawat Limungkura, **Peerapon Vateekul**, “Partition-based Overlapping Clustering Using Cluster’s Parameters and Relations”, KST2017, Pattaya, Chon Buri, Thailand, February 1-4 2017.
* Manassakan Sanayha and **Peerapon Vateekul**, “Fault Detection for Circulating Water Pump Using Time Series Forecasting and Outlier Detection”, KST2017, Pattaya, Chon Buri, Thailand, February 1-4 2017.

**[2016] (10 papers)**

* Kornraphop Kawintiranon, **Peerapon Vateekul**, Atiwong Suchato, Proadpran Punyabukkana, “Understanding Knowledge Areas in Curriculum through Text Mining from Course Materials”, IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE2016), Bangkok, Thailand, December 7-9 2016.
* Phairod Tuntiwachiratrakun and **Peerapon Vateekul**, “Applying Active Learning Strategy to Classify Large Scale Data with Imbalanced Classes”, ICCAIS2016, Korea October 27-29 2016.
* Sitthiphong Muthong, **Peerapon Vateekul**, Mana Sriyudthsak, “Stacked Probabilistic Regularized LDA on Partitioning Non-Stationary EEG Data for Left/Right Hand Imagery Classification”, IECBES2016 Malaysia December 4-8 2016
* **Peerapon Vateekul** and Thanabhat Koomsubha, “A Study of Sentiment Analysis Using Deep Learning Techniques on Thai Twitter Data,” *in The 13th International Joint Conference on Computer Science and Software Engineering (JCSSE)*, Khon Kaen, Thailand, July 13-15 2016.
* Suthipong Daengduang and **Peerapon Vateekul**, “Enhancing Accuracy of Multi-Label Classification by Applying One-vs-One Support Vector Machine,” *in The 13th International Joint Conference on Computer Science and Software Engineering (JCSSE)*, Khon Kaen, Thailand, July13-15 2016.
* Kornraphop Kawintiranon, Yanika Buatong, and **Peerapon Vateekul**, “Online Music Emotion Prediction on Multiple Sessions of EEG Data Using SVM,” *in The 13th International Joint Conference on Computer Science and Software Engineering (JCSSE)*, Khon Kaen, Thailand, July 13-15 2016.
* Nattapon Werayawarangura, Thanaphoom Pungchaichan, and **Peerapon Vateekul**, “Social Network Analysis of Calling Data Records for Identifying Influencers and Communities,” *in The 13th International Joint Conference on Computer Science and Software Engineering (JCSSE)*, Khon Kaen, Thailand, July 13-15 2016.
* Sitthiphong Muthong, **Peerapon Vateekul**, and Mana Sriyudthsak, “An Adjustment Strategy On Multi-Session EEG Data for Online Left/Right Hand Imagery Classification,” *In 8th International Conference on Knowledge and Smart Technology (KST)*, pp.179-183, Chiang Mai, Thailand, February 3-6 2016.
* Itsara Wichakam and **Peerapon Vateekul**, “Combining Deep Convolutional Networks and SVMs for Mass Detection on Digital Mammograms,” *In 8th International Conference on Knowledge and Smart Technology (KST)*, pp.239-244, Chiang Mai, Thailand, February 3-6 2016.
* Teerawit Choeikiwong and **Peerapon Vateekul**, “Improve Accuracy of Defect Severity Categorization Using Semi-Supervised Approach on Imbalanced Data Sets,” *In the International MultiConference of Engineers and Computer Scientists 2016 (IMECS)*, pp.434-438, Hong Kong, 2016.

**[2015] (4 papers)**

* Piyawat Lertvittayakumjorn, Panida Nimnual, **Peerapon Vateekul** and Pijitra Tsukamoto, “A system to analyze Twitter data for social science study,” *in 7th International Conference on Information Technology and Electrical Engineering (ICITEE)*, pp 581-586, Chiang Mai, Thailand, October 2015.
* Nuttapon Pattanavijit, **Peerapon Vateekul**, and Kanoksri Sarinnapakorn, “A Linear-Clustering Algorithm for Controlling Quality of Large Scale Water-Level Data in Thailand,” *in The 12th International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp 269-274, Songkhla, Thailand, July 2015.
* Kankawin Kowsrihawat and **Peerapon Vateekul**, “An Information Extraction Framework for Legal Documents: a Case Study of Thai Supreme Court Verdict,” *in The 12th International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp 275-280, Songkhla, Thailand, July 2015.
* Teerawit Choeikiwong and **Peerapon Vateekul**, “Software Defect Prediction in Imbalanced Data Sets Using Unbiased Support Vector Machine,” *In 6th International Conference on Information Science & Applications (ICISA 2015)*, pp. 923-931, Pattaya, Thailand, 2015.

**[2014] (6 papers)**

* Pattarasai Markpeng, Piraya Wongnimmarn, Nattarat Champreeda, **Peerapon Vateekul**, and Kanoksri, “Controlling Quality of Water-Level Data in Thailand,” *In 6th Conference on Intelligent Information and Database Systems*, pp.503-512, Bangkok, Thailand, April 2014.
* Thanawut Ananpiriyakul, Piyapan Poomsirivilai, and **Peerapon Vateekul**, “An Implementation of Hierarchical Multi-Label Classification System,” *In 4th IEEE Thailand Student Conference on Senior Capstone Project (IEEE Thailand SCAP 2014)*, Chonburi, Thailand, March 28, 2014.
* Thanawut Ananpiriyakul, Piyapan Poomsirivilai, and **Peerapon Vateekul**, “Label Correction Strategy on Hierarchical Multi-Label Classification,” *In 10th International Conference on Machine Learning and Data Mining MLDM, pp 213-227 July 2014*.
* Natchanon Phachongkitphiphat and **Peerapon Vateekul**, “An Improvement of Flat Approach on Hierarchical Text Classification Using Top-Level Pruning Classifiers,” *in The 11th International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp 86-90, Chonburi, Thailand, May 2014.
* Itsara Wichakam and **Peerapon Vateekul**, " An Evaluation of Feature Extraction in EEG-Based Emotion Prediction with Support Vector Machines," *in The 11th International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp 86-90, Chonburi, Thailand, May 2014.
* **Peerapon Vateekul**, Nattapong Thammasan, Koichi Moriyama, Kenichi Fukui, and Masayuki Numao, "Item-Based Learning for Music Emotion Prediction Using EEG Data", *In 5th International Workshop on Empathic Computing (IWEC-14)*, pp. 87-98, Gold Coast, Australia, December. 2014.

**[2013] (1 paper)**

* Rattiya Thanasoontornrerk, **Peerapon Vateekul**, Pizzanu Kanongchaiyos, Chatkaew Pongmala, and Areerat Suputtitada, “Tree Induction for Diagnosis on Movement Disorders Using Gait Data,” *In 5th International Conference on Knowledge and Smart Technology (KST)*, pp.47-52, Chonburi, Thailand, 2013.

**[2012] (1 paper)**

* R. Thanasoontorn, S. Saran, P. Maleehuan, P. Kanongchaiyos, **Peerapon Vateekul** and et al., “Kinect-based Gait Capture and Analysis System,” *In 5th AUN/SEED-Net Regional Conference on Information and Communications Technology* (Manila Philippines, 2012)

**[2009 and before] (5 papers)**

* **Peerapon Vateekul** and Miroslav Kubat, “Fast Induction of Multiple Decision Trees in Text Categorization From Large Scale, Imbalanced, and Multi-label Data,” *In the Proceedings of the 2009 IEEE International Conference on Data Mining Workshops (ICDMW’09)*, Miami, FL, USA, December 6-9, 2009.
* **Peerapon Vateekul** and Kanoksri Sarinnapakorn, “Tree-based Approach to Missing Data Imputation,” *In the Proceedings of the 2009 IEEE International Conference on Data Mining Workshops (ICDMW’09)*, Miami, FL, USA, December 6-9, 2009.
* **Peerapon Vateekul** and Mei-Ling Shyu, “A Conflict-Based Confidence Measure for Associative Classification,” *In the Proceedings of the 2008 IEEE International Conference on Information Reuse and Integration (IEEE IRI-08)*, Las Vegas, Nevada, USA, July 13-15, 2008.
* **Peerapon Vateekul** and Arnon Rungsawang, “DWORM: Distributed Text Retrieval Prototype on Grid Computing Environment,” *In the 4th International Symposium on Communications and Information Technology, (ISCIT2004)*, Sapporo, Japan, October 26-29 2004.
* **Peerapon Vateekul** and Arnon Rungsawang, “Increasing Foreign Web Access Speed using Grid Based Routing Proxy,” *In the National Computer Science and Engineering Conference (NCSEC2003)*, Chiangmai, Thailand, 2003.

# Tools

* **Data Mining and Statistical Software Tools:** SAS, SAS Enterprise Miner, SPSS Modeler, SPSS Statistics, WEKA, Matlab, SQL Server Data Mining
* **Programming Languages/Developing Tools:** Python, R, C/C++, PHP, Java, Matlab, SAS, SQL, PL/SQL, HTML, Java Script, Perl, Shell Script, C#, Visual Studio .NET
* **Database:**MySQL, SQL Server, MS Access
* **Business Intelligence Tools:** SAS Visual Analytic, SAS Data Integration, IBM Cognos BI, IBM, Pentaho, Tableau, Power BI
* **Big Data Ecosystems:** Hadoop platform, Spark

# Certificate

* “IBM Cognos” in 2015
* “SAS Certified Base Programmer for SAS 9”, 24 May 2016
* “SAS Certified Predictive Modeler Using SAS Enterprise Miner 13”, 22 Jun 2016
* “NVIDIA DLI University Ambassadorship” in Computer Vision, Natural Language Processing, and Multiple Data Types since Oct-2018

# Training

* “Big Data Certification Course,” IMC Institute, Mar – Jun 2015 (3 months)
  + Module 1: Big Data Essentials and NoSQL
  + Module 2: Big Data Using Hadoop
  + Module 3: Business Intelligence Design & Process
  + Module 4: Data Scientist Essentials
* “Workshop on Data Analytics with Pentaho BI, Weka, R, and Hadoop”, Thai-Australian Technological Services Center, June 13 – 18, 2016 (6 days)
  + Course1: Pentaho BI Basics
  + Course2: From Business Intelligence to Data Science

# Professional Experience

**NOV2012 – PRESENT**

Professor, Department of Computer Engineering, Faculty of Engineering, Chulalongkorn University, TH

* Teaching:
  + Responsible for 6 courses including: (1) Programming Methodology (Java), (2) Special Problem in Computer Engineering (Business Intelligence and Data Warehousing), (3) Computer Programming (Python), and (4) Data Science and Data Engineering, (5) Big Data Tools, (6) NLP SYS
  + 2012 – Present: Invited SAS instructor: SAS Enterprise Miner, SAS Programming, SAS Statistics, SAS Macro Programming, SAS Data Integration, SAS Visual Analytic, SAS Viya
* Responsibilities:
  + 2015 – 2019: Associate Head of Dept. on Academic Affairs, Department of Computer Engineering, Chulalongkorn University
  + 2014 – 2015: Responsible for job and internship program
  + 2013: Technical Program Chair of 2013 IEEE Student Conference on Senior Capstone Project (IEEE SCAP 2013)
  + 2012 – 2013: Secretariat of 20th Asia-Pacific Software Engineering Conference (APSEC2013)

**FEB 2009 –MAY 2012**

Research Assistant, Behavioral Medicine Research Center (BMRC), University of Miami, USA

* Data Management (SAS, Java, SQL Server): data transformation and data conversion/integration (multiple data formats, many sources, various medical equipment and systems), imports, and exports.
* Data Analysis (SAS and SPSS): provided statistical analysis and supplied on-going support needs for ad-hoc analysis.
* Web Development (Java Script, PHP-MySQL): maintenance the central web system and implemented web application to convert input excel files.

**JAN – DEC 2008**

Teaching Assistant, Department of Electrical and Computer Engineering, University of Miami, USA

* Provided training on two C++ computer programming lab courses: (1) Introduction to Programming and (2) Intermediate Computer Programming (data structure and object-oriented concept).

**JAN 2005 – MAY 2007**

Lecturer, Department of Computer Engineering, Bangkok University, TH

* Responsible for 5 courses including: (1) Data Structure and Algorithm, (2) Data Structure and Algorithm Laboratory, (3) Database System, (4) Digital1 (basic logic gate concept), and (5) Digital2 (VHDL).

**JUN – DEC 2004**

Programmer, Ministry of Interior, Provincial Operation Center (MOC), TH

* Implemented a Key Performance Indicator (KPI) system (PHP-MySQL, Oracle, and PL/SQL): the system integrates data from various sources and presents them in user-friendly interfaces (charts, graphs, and tables) to help executive governors understand the summarized data.

**APR – JUN 2003, 2004**

Teaching Assistant, Master Science in Information Technology (MSIT), Kasetsart University, TH

* Assisted with the Linux administrator course (user setting, mail server, apache web server, etc.).

**APR – JUL 2002**

Programmer, Shinbroadband Internet (Thailand) Co., Ltd., TH

* Developed a website allowing alumni to continue communication after graduation (PHP & MySQL).

# References

* Dr. Miroslav Kubat, Associate Professor  
  Department of Electrical and Computer Engineering, College of Engineering, University of Miami, USA  
  Tel: +1305-284-3264, Email: mkubat@miami.edu
* Dr. Maria M. Llabre, Professor  
  Department of Psychology, College of Arts and Sciences, University of Miami, USA  
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* Dr. Kitsana Waiyamai, Associate Professor

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* Dr. Tiparatana Wongcharoen, Associate Professor

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