

# Jiradett Kerdetsri, PhD

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## EDUCATION

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- **Sirindhorn International Institute of Technology** Pathumthani, Thailand  
*Ph.D. in Engineering and Technology* 2011 - 2015
- **University of Melbourne** Victoria, Australia  
*Master in Geographic Information Technology* 2008 - 2009
- **US Naval Postgraduate School** California, USA  
*Master in Computer Science* 2001 - 2003
- **Air Force Academy** Bangkok, Thailand  
*Bachelor in Civil Engineering* 1994 - 1999

## EXPERIENCE

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- **Deputy Director of Data Analytics** Oct 2018 - Oct 2021  
*Bank of Thailand*
  - **Chief Data Scientist:** Leading the core-data scientist team to make use of micro/granular data and alternative data (big data) to augment insights found from aggregated data through the use of artificial intelligence, machine learning, text processing, and network theory.
  - **Data Architect:** Involve with enterprise data architecture, data engineering process, data strategic, and data pipeline to achieve the goal of data-driven organization.
- **Director of Data Communication** Jul 2009 - Oct 2018  
*Defense Technology Institute*
  - **Research topics:** Big data, Data analytics, Artificial Intelligence, Machine (deep) Learning (mainly on Computer Vision), Opportunistic Network, MANET, Tactical Network, etc.
  - : Lead and manage data communication laboratory for research and functional projects.
  - : Software implementations mainly on JAVA, PHP, and Python.
  - : Project manager for software implementation, basic research and research publication.
  - : Manage and maintain organization KPI on research publications.
  - : Organizing the international conference on defense research.
  - : Provide knowledge management for basic research, ICT projects, and research publications.
  - : Support director of research and development with technical reports.
  - : Coach and mentor the associate researchers on research methodology.
  - : Suggest technology initiatives and implementation plans for related defense research projects.
- **Lecturer** May 2013 - Sep 2018  
*International Hospitality Management School VATEL*
  - : Implemented and managed ICT curriculum for VATEL.
  - : Teaching information technology for the hospitality business course.
- **IT Administrator & Sales** Melbourne, Australia  
*Something Aussie* Jan 2008 - Jan 2009
  - : Managed IT infrastructure for the shop, including online payment, PoS, CRM, and website.
  - : Responsible for sales and marketing.
  - : Maintained the website and online orders.
  - : Supported the PR team, and social media marketing.
- **Software Developer** Mar 2003 - Jul 2009  
*Ministry of Defence*
  - : Implemented and develop the application for Command, Control, Communications, Computers, & Intelligence (C4I) system.
  - : Worked on data analytics for Geographic Information System (GIS) and spatial analysis.

- : Worked with US Department of Defence on Multinational Communications Interoperability Program (MCIP).
- : Developed communication application for Counter Terrorist Operations Center (CTOC).
- : Worked with the United Nations for the peacekeeping mission.

## • Student Pilot

*Air Force*

*Oct 1999 – Oct 2000*

- : Trained on CT-4 aircraft.
- : Trained on Bell-206 helicopter.

## PUBLICATIONS

### JOURNALS

- [1] Jiradett Kertsri and Tawiwat Veeraklaew. “Visualization of Spatial Distribution of Random Waypoint Mobility Models”. In: *Journal of Computers* 12.4 (2017), pp. 309–316.
- [2] Jiradett Kertsri and Komwut Wipusitwarkun. “Dynamic Rendezvous Based Routing Algorithm on Sparse Opportunistic Network Environment”. In: *International Journal of Distributed Sensor Networks* 11.2 (2015), p. 819178. DOI: 10.1155/2015/819178.
- [3] Jiradett Kertsri and Komwut Wipusitwarkun. “DORSI : Data-wise Opportunistic Routing with Spatial Information”. In: *Journal of Convergence Information Technology* 8.August (2013), pp. 91–103.
- [4] Jiradett Kertsri, Tawiwat Veeraklaew, and Settapong Malisuwan. “Randomized Replication based on Multilevel of Security for Opportunistic Network”. In: *International Journal of Electronics and Electrical Engineering* 1.2 (2013), pp. 115–119. DOI: 10.12720/ijeee.1.2.115-119.
- [5] Jiradett K. and Ornin S. “The Safety of WiMAX Insolid Propellant Rocket Production”. In: *International Journal of Electronics and Communication Engineering* 5.6 (2011), pp. 747–749. ISSN: eISSN: 1307-6892. URL: <https://publications.waset.org/vol/54>.

## CONFERENCE PROCEEDINGS

- [1] Jiradett Kertsri and Tawiwat Veeraklaew. “Opportunistic Network Informatics using Deep Learning”. In: *2018 International Conference on Information and Social Science*. Apr. 2018.
- [2] J. Kertsri et al. “A long-range low-power wireless sensor network based on U-LoRa technology for tactical troops tracking systems”. In: *2017 Third Asian Conference on Defence Technology (ACDT)*. Jan. 2017, pp. 32–35. DOI: 10.1109/ACDT.2017.7886152.
- [3] J. Kertsri and T. Veeraklaew. “Analysis of energy and mobility model on opportunistic routing algorithms”. In: *2015 11th International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QSHINE)*. Aug. 2015, pp. 60–65.
- [4] Jiradett Kertsri and Komwut Wipusitwarkun. “Data-wise Routing in Virtualization Environment (DRIVE) with multiple level of security for tactical network”. In: *2012 IEEE/SICE International Symposium on System Integration (SII)*. IEEE, Dec. 2012, pp. 933–938. ISBN: 978-1-4673-1497-8. DOI: 10.1109/SII.2012.6427357.
- [5] J. Kertsri and K. Wipusitwarkun. “Data-wise Routing in Virtualization Environment (DRIVE) with multiple level of security for tactical network”. In: *2012 IEEE/SICE International Symposium on System Integration (SII)*. Dec. 2012, pp. 933–938. DOI: 10.1109/SII.2012.6427357.
- [6] J. Kertsri and K. Wipusitwarkun. “Network virtualization for military application: Review and initial development of conceptual design”. In: *2012 14th International Conference on Advanced Communication Technology (ICACT)*. Feb. 2012, pp. 61–66.
- [7] Jiradett K., Ornin S., and Teeranun S. “The use of RFID in solid propellant rocket production management system”. In: *publication description World Academy Science Engineering and Technology*. July 2010.

## BOOKS

- [1] *iPhone 5s/c Complete user guide*. SE-EDUCATION, 2013. ISBN: 9786167240343.
- [2] *Samsung Galaxy S4 the Complete Manual*. SE-EDUCATION, 2013. ISBN: 9786167240329.
- [3] *Samsung Galaxy Note 2*. SE-EDUCATION, 2012. ISBN: 9786167240312.
- [4] *Max OS X Mountain Lion*. SE-EDUCATION, 2012. ISBN: 9786167240299.

- [5] *Samsung Galaxy S3: How to use*. SE-EDUCATION, 2012. ISBN: 9786167240275.
- [6] *Wiki, Knowledge Management System*. SE-EDUCATION, 2007. ISBN: 9789749560136.
- [7] *SNMP over Wi-Fi wireless networks*. Storming Media, 2003. ISBN: 1423503287.

## CERTIFICATES

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- **Azure Service Bus for Developers**: Udemey
- **Apache Spark SQL for Data Analyst**: Coursera
- **ISO/IEC 27701:2019**: BSI
- **Deploy Machine Learning & NLP Models with Docker (DevOps)**: Udemey
- **The Data Scientist's Toolbox by Johns Hopkins University**: Couseara
- **Deep Learning Institute Fundamentals Workshop**: NVIDIA
- **Power BI**: DataCube
- **Using Python to Access Web Data**: Coursera
- **Data Analytics and Big Data using Opensource**: Kasetsart University
- **Introduction to Data Science in Python**: Coursera
- **Big Data Analytic using Hadoop and Spark**: IMC Institute
- **Leadership**: FranklinCovey
- **Smart Professional Image for Project Manager Program**: John Robert Powers
- **Python for Everybody Specialization**: Coursera
- **Big Data Training Course**: Udemey

## DATA CONSULTANT

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- **Pro Technical Info Services Co.Ltd.**: Provide consultative guidance on deploying big data analytics concepts to project.
- **ENergy SOLution (ENSOL)**: Provide consultative guidance on collecting and analyze IoT data from various sensors.

## SPEAKING ENGAGEMENTS

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- **Chief Data Scientist Conference**: Keynote Speaker: Enabling data generation to feed the need of machine learning, Bangkok, Thailand, 2020.
- **World AI Show**: Panelist: Enabling Innovation Through Effective Digital Transformation, Intercontinental, Bangkok, Thailand, 2019.
- **Enterprise AI Conference**: Keynote Speaker: Data Analytics for Central Bank, Grand Mercure Bangkok Fortune, 2019.
- **2nd Annual Analytics Leader Summit**: Keynote Speaker and Panelist: Data Analytics for Bank of Thailand, Mercure Manila, Philippines, 2019.
- **3rd Annual Analytics Leader Summit**: Keynote Speaker and Panelist: Data Analytics for Bank of Thailand, Ayana Mid Plaza, Jakara, Indonesia, 2019.
- **1st Annual Analytics Leader Summit**: Keynote Speaker: Military AI Research, Bangkok, Thailand, 2019.
- **SmartCom 2018 -The 5th International Workshop on Smart Wireless Communications**: Invited Talk: Opportunistic Network Informatics using Deep Learning, Mandarin Hotel, Bangkok, Thailand, 2018.

## PROJECTS

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- **Unfit Banknote Classification [2019]**: Use Convolutional Neural Network (ConvNet/CNN) for modeling the machine learning classification to identify the unfit note for banknote production.
- **Computer Vision for Vehicle detection [2017]**: Develop a deep learning program to detect the vehicle (brand, model, color and year) for CCTV using Python and TensorFlow.
- **Organizing international conference on defense technology (ACDT)**: Responsible for organizing Asian Conference on Defence Technology (ACDT) which started from 2015 and held annually:
  - **The First Asian Conference on Defence Technology**: Huahin, Thailand, 23 – 25 April 2015.
  - **The Second Asian Conference on Defence Technology and The First Pacific Rim International Workshop on Defence, Safety, and Security Technology**: Chiang Mai, Thailand, 21 – 23 January 2016.

- **The Third Asian Conference on Defence Technology:** Phuket, Thailand, 18 – 20 January 2017.
- **The Fourth Asian Conference on Defence Technology:** Tokyo, Japan, 29 November – 1 December 2017.
- **The Asian Conference on Defence Technology 2018:** Hanoi, Vietnam, 25 - 27 October 2018.
- **Intelligence Data-Link Analysis for Checkpoint Operations (IDA-CHO) [2017-2018]:** The co-research project with National Electronics and Computer Technology Center (NECTEC) developed on: - Graph Database: Neo4j - Link Analysis: Python, Cypher (Neo4j's graph query language) - Graph Visualization: CytoScape, PostMan, WebApp2, JinJa2, Javascript, Bootstrap
- **Internal ballistic simulation software [2013-2015]:** Develop a simulation software for rocket internal ballistic using JAVA.
- **Common Operation Picture (COP) [2012-2014]:** Develop a situational awareness application for Thai Armed Forces based on C# and Google Map Enterprise with the Data Distribution Service (DDS) communication..
- **Multinational Communications Interoperability Program (MCIP) [2008]:** The program to test the interoperability for communication systems among US and ASEAN countries.
- **Management information system (MIS) for the criminal court [2004-2005]:** Implement the paperless information system to replace conventional system. The system was deployed on JSP and Oracle database.
- **Fabric pattern selection software [2003-2004]:** Develop a fabric pattern selection software for The Foundation For the Promotion of Supplementary Occupations and Related Techniques under the Royal Patronage of Her Majesty the Queen using PHP.
- **Negotiations software for anti-terrorist communication system [2003-2004]:** Implement a software for multi-users communications (Twitter-like) for negotiations in anti-terrorist mission for Counter Terrorist Operations Center (CTOC) using PHP.