# Jiradett Kerdsri, PhD

linkedin.com/in/jiradett/

## **EDUCATION**

• Sirindhorn International Institute of Technology

Ph.D. in Engineering and Technology

Pathumthani, Thailand

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2011 - 2015

• University of Melbourne

Master in Geographic Information Technology

Victoria, Australia

2008 - 2009

• US Naval Postgraduate School

Master in Computer Science

California, USA

2001 - 2003

• Air Force Academy

Bachelor in Civil Engineering

Bangkok, Thailand 1994 - 1999

### EXPERIENCE

## • Deputy Director of Data Analytics

Bank of Thailand

Oct 2018 - Present

- 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 enterprize data architecture, data engineering process, data strategic, and data pipeline to achieve the goal of data-driven organization.

### • Director of Data Communication

Defense Technology Institute

Jul 2009 - Oct 2018

- 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.
- $\circ\,$  : 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

International Hospitality Management School VATEL

May 2013 - Sep 2018

- : Implemented and managed ICT curriculum for VATEL.
- : Teaching information technology for the hospitality business course.

# • IT Administrator & Sales

Melbourne, Australia

Jan 2008 - Jan 2009

• : Managed IT infrastructure for the shop, including online payment, PoS, CRM, and website.

- : Responsible for sales and marketing.
- $\circ\,$  : Maintained the website and online orders.
- : Supported the PR team, and social media marketing.

#### • Programmer

Something Aussie

Ministry of Defence

Mar 2003 - Jul 2009

Supreme Command Headquarters

- : 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.

# • Survey officer

Air Force Oct 2000 – Oct 2001

- $\circ$ : Responsible for Air Force assets including construction design, build, and maintenance.
- : Provided drawing and building designs.
- : Controlled the construction team according to building plan.

#### • Student Pilot

Air Force Oct 1999 - Oct 2000

 $\circ\,$  : Trained on CT-4 aircraft.

 $\circ$ : Trained on Bell-206 helicopter.

#### Publications

#### Journals

- [1] Jiradett Kerdsri and Tawiwat Veeraklaew. "Visualization of Spatial Distribution of Random Waypoint Mobility Models". In: *Journal of Computers* 12.4 (2017), pp. 309–316.
- [2] Jiradett Kerdsri and Komwut Wipusitwarakun. "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 Kerdsri 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 Kerdsri, 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 Kerdsri and Tawiwat Veeraklaew. "Opportunistic Network Informatics using Deep Learning". In: 2018 International Conference on Information and Social Science. Apr. 2018.
- [2] J. Kerdsri 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. Kerdsri 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 Kerdsri 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. Kerdsri 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. Kerdsri 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 descriptionWorld 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

- ISO/IEC 27701:2019: BSI
- Deploy Machine Learning & NLP Models with Dockers (DevOps): Udemy
- The Data Scientist's Toolbox by Johns Hopkins University: Cousera
- 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: Udemy

### Data Consultant

- 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

- 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, Intercontintental, 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

- 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.