

EXPERIENCE

- **Data Engineer Lead**

Cancer Council Victoria

Melbourne, Australia

July 2023 - Present

- **Data Architecture & Modernization:**

- * Led the development of a Snowflake data warehouse as the single source of truth, centralizing and streamlining data management.
- * Modernized the CRM platform by migrating to Salesforce, enhancing data accessibility and customer relationship management.
- * Built and optimized data pipelines using Azure Data Factory and Microsoft Fabric, ensuring efficient data flow and transformation.
- * Implemented CI/CD practices on DevOps, automating deployment processes and improving system reliability.
- * Collaborated with stakeholders to design and present data solutions, including visualizations and relational databases.
- * Took ownership of the end-to-end data project lifecycle, from strategy and road-mapping to architecture and implementation.
- * Participated in agile teams to deliver key features and functionalities.

- **Data Engineer**

Parliament of Victoria

Melbourne, Australia

Dec 2021 - July 2023

- **Data Strategy & Modernization:**

- * Led the design, development, and deployment of data platform solutions, including ETL and data analysis.
- * Spearheaded data management infrastructure renovation, driving automation in data integration and management.
- * Migrated on-prem solutions to cloud services, modernizing the data environment and improving scalability.
- * Developed data products using version control and DevOps practices to ensure efficient and reliable delivery.
- * Utilized Power BI and Microsoft Fabric for advanced data visualization and integration, enhancing data accessibility and insights.
- * Owned Azure API Management and Azure Service Bus tools, ensuring seamless data flow and integration.

- **End-to-End Data Engineering:**

- * Built and operationalized data pipelines, collaborating with stakeholders for continuous improvement of enterprise data frameworks.
- * Used modern data preparation and integration tools.
- * Automated data integration flows and monitored schema changes to enhance data reliability.

- **Collaboration & Governance:**

- * Partnered with business and IT teams to refine data requirements and promote data capabilities across the organization.
- * Ensured data governance and compliance, contributing to a curated data catalog for governed reuse.
- * Planned and initiated the creation of a data warehouse to serve as a single source of truth for siloed data, enhancing data consistency and accessibility.

- **Deputy Director of Data Analytics**

Bank of Thailand

Oct 2018 - Oct 2021

- **Principal Data Scientist & AI/ML Specialist:**

- * Led a team of data scientists to leverage AI and machine learning on granular and alternative data, enhancing insights beyond traditional analytics.
- * Executed time series forecasting projects using advanced algorithms to predict trends and anomalies.
- * Developed convolutional neural networks (CNNs) for image processing, achieving high accuracy in classification and detection tasks.
- * Integrated NLP and text mining to extract insights from unstructured data.
- * Collaborated with data engineers to design scalable data pipelines for time series and image data analysis.

- * Mentored junior data scientists in machine learning techniques, fostering a culture of innovation.

- **Data Architect & Strategic Leader:**

- * Played a pivotal role in shaping the enterprise data architecture, ensuring it supports the advanced needs of AI and machine learning projects.
- * Directed the data engineering processes to build scalable, efficient data pipelines that feed into AI and machine learning models, facilitating real-time data processing and analysis.
- * Led strategic initiatives to advance the organization toward a fully data-driven model, with a strong focus on integrating AI and machine learning into the core decision-making processes.
- * Worked closely with stakeholders to align data architecture and engineering efforts with business objectives, ensuring the deployment of AI and machine learning models that meet specific organizational needs.

- **Director of Data Communication**

Defense Technology Institute

Jul 2009 - Oct 2018

- **Director of Research:**

- * Led and managed a data communication laboratory, overseeing research and functional projects in areas such as Big Data, AI, Machine Learning, and Computer Vision.
- * Directed AI/ML research initiatives, particularly in computer vision, and drove advancements in opportunistic networks, MANET, and tactical networks.
- * Managed software development projects using JAVA, PHP, and Python, ensuring the successful implementation of research findings into functional software solutions.
- * Acted as project manager for research projects, ensuring alignment with organizational goals and timely publication of research outcomes.
- * Maintained and exceeded organizational KPIs related to research publications, contributing to the organization's reputation and academic impact.
- * Organized and led international conferences on defense research, facilitating knowledge exchange and collaboration within the global research community.
- * Provided expert knowledge management for basic research, ICT projects, and research publications, supporting strategic initiatives.
- * Supported the Director of Research and Development with detailed technical reports, providing insights and recommendations based on the latest research findings.
- * Coached and mentored associate researchers in research methodology, fostering a culture of continuous learning and innovation.
- * Suggested and implemented technology initiatives for defense research projects, driving the adoption of cutting-edge AI and ML techniques in defense applications.

- **Lecturer**

International Hospitality Management School VATEL

May 2013 - Sep 2018

- **Invited lecturer:**

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

- **IT Administrator & Sales**

Something Aussie

Melbourne, Australia

Jan 2008 - Jan 2009

- **IT and Sales support:**

- * 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**

Ministry of Defence

Mar 2003 - Jul 2009

- **Programming and System Administrator:**

- * 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 Aircrafts:

- * PAC CT/4 Airtrainer.
- * Bell 206 JetRanger/LongRanger Multipurpose utility helicopter.

EDUCATION

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

PUBLICATIONS

JOURNALS

- [1] Jiradett Kerd Sri and Tawiwat Veeraklaew. "Visualization of Spatial Distribution of Random Waypoint Mobility Models". In: *Journal of Computers* 12.4 (2017), pp. 309–316.
- [2] Jiradett Kerd Sri 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 Kerd Sri and Komwut Wipusitwarakun. "DORSI : Data-wise Opportunistic Routing with Spatial Information". In: *Journal of Convergence Information Technology* 8.August (2013), pp. 91–103.
- [4] Jiradett Kerd Sri, 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 Kerd Sri and Tawiwat Veeraklaew. "Opportunistic Network Informatics using Deep Learning". In: *2018 International Conference on Information and Social Science*. Apr. 2018.
- [2] J. Kerd Sri 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. Kerd Sri 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 Kerd Sri and Komwut Wipusitwarakun. "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. Kerd Sri and K. Wipusitwarakun. "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. Kerd Sri 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

- **Hands On Essentials - Data Engineering:** Snowflake
- **DP-500T00 -Designing and Implementing Enterprise-scale Analytics Solutions using Microsoft Azure and Microsoft Power BI:** Advanced Training
- **DP-203T00 - Data Engineering on Microsoft Azure:** Advanced Training
- **Microsoft Azure for Data Engineering:** Coursera
- **Azure Service Bus for Developers:** Udemy
- **Apache Spark SQL for Data Analyst:** Coursera
- **ISO/IEC 27701:2019:** BSI
- **Deploy Machine Learning & NLP Models with Docker (DevOps):** Udemy
- **The Data Scientist’s Toolbox by Johns Hopkins University:** Coursera
- **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, 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, Jakarta, 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.

SELECTED 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.