

TRUC-VIET LE

DATA SCIENTIST / AI ENGINEER

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PROFESSIONAL SUMMARY

As a seasoned data scientist with experiences across finance, e-commerce, and technology sectors, I'm passionate about leveraging AI to drive efficiency and solve complex business problems. Currently, at EFG, I've implemented LLM solutions for internal knowledge search and language translation in specialized financial terms. Previously, at Credit Suisse, I led AI initiatives for AML investigations, achieving over 95% accuracy in transaction monitoring. At Agoda, I developed high-precision matching algorithms, reducing duplicate listings by 80%. My journey began at SAP, where I contributed to automating enterprise accounting processes, earning three U.S. patents.

TECHNOLOGIES & SKILLS

Programming	R, Python, Java, Scala, JavaScript, Bash, SQL, Git, Docker, CI/CD pipelines
AI Frameworks	scikit-learn, NLTK, spaCy, Gensim, Transformers (Hugging Face), PyTorch, Langchain
Big Data & Cloud	Hadoop, Spark, Databricks, MLflow, PostgreSQL, MongoDB, Redis, Neo4j, AWS, Azure, GCP
Skills & Interests	Payment & graph analytics, transaction monitoring, knowledge graphs, link analysis, entity resolution, ETL pipelines, clustering, anomaly & fraud detection, natural language processing (NLP), RAG, LLMs, MLOps
Soft Skills	Problem-solving, detail-oriented, critical thinking, effective communications, creative & strategic thinking, Teamwork, mentorship, stakeholder & project management (agile, scrum), cultural sensitivity & inclusivity

EXPERIENCE

Senior Data Scientist (VP) | EFG International | Singapore, Singapore Jan 2024 – Present

EFG International is a Swiss boutique private bank with a global reach. The bank is known for its modern entrepreneurial approach to traditional Swiss wealth management with strict client confidentiality.

- Developed an in-house RAG (retrieval augmented generation) system for internal knowledge search, enhancing productivity by saving ~20 minutes per user per week.
- Fine-tuned LLMs (large language models) for improved language translation in specialized financial terms.
- Conducted AI and LLM training courses for non-technical users to promote AI adoption.
- Streamlined periodic reviewing by dynamically updating client risk profiles based on account structure, investment behaviors, and trading patterns.

Senior Data Scientist (AVP) | Credit Suisse AG (Part of UBS Group) | Singapore, Singapore Dec 2021 – Dec 2023

- Led development of AI solutions for AML (anti-money laundering) investigations, achieving >95% accuracy in name matching for transaction monitoring in production.
- Automated entity resolution and semantic extraction from SWIFT messages, reducing investigation time by 2-3 hours per case.
- Utilized knowledge graphs and link analysis to uncover hidden relationships and money-laundering typologies.

Data Scientist | Agoda.com (Part of Booking Holdings Group) | Singapore, Singapore Sept 2019 – Nov 2021

Agoda.com is an online travel agency with dominant market share in the Asia-Pacific region. Agoda strives to become a one-stop shop for all travel needs, including accommodations, flights, and activities with competitive pricing.

- Developed matching algorithms to map and deduplicate properties across suppliers, improving search and recommendations.
- Deployed a high-precision mapping pipeline on Spark cluster, reducing duplicate listings by ~80%.
- Developed image deduplication algorithms to merge property galleries, improving content and user experience.

Machine Learning Developer | SAP Asia Pte. Ltd. | Singapore, Singapore Jul 2017 – Jul 2019

- Contributed to automating enterprise accounting processes, resulting in the [SAP Cash Application](#) module.
- Invented algorithms to solve the multi-match problem in cash application, earning three U.S. patents.
- Improved matching accuracy of bank statements to invoices to >98% using NER (named entity recognition).
- Utilized the LIME framework to explain matched results, enhancing interpretability and adoption of Cash Application.

EDUCATION

- Ph.D. in Information Systems** | Singapore Management University | Singapore, Singapore Jan 2013 – Jul 2017
- Thesis: *An integrated framework for modeling & predicting spatiotemporal phenomena in urban environments*
- Visiting Ph.D. Scholar** | Carnegie Mellon University (CMU) | Pittsburgh, USA Aug 2014 – Jul 2015
- Did coursework, research and teaching assistant at Heinz College of Information Systems and Public Policy
- M.Sc. in Mathematical Sciences** | Nanyang Technological University | Singapore, Singapore Jan 2011 – Jul 2012
- Thesis: *Pareto stable matchings: An empirical study*
- B.Eng. in Computer Engineering** | Nanyang Technological University | Singapore, Singapore Aug 2005 – Jul 2009
- Final Project: *A mathematical model of hospital length of stay*

PUBLICATIONS

Truc Viet Le, Baoyang Song & Laura Wynter. *Real-time Prediction of Length of Stay Using Passive Wi-Fi Sensing*. The 2017 IEEE International Conference on Communications (IEEE ICC 2017), Internet of Things (IoT) Track, Paris, France.

Truc Viet Le, Richard Oentaryo, Siyuan Liu & Hoong Chuin Lau (2017). *Local Gaussian Processes for Efficient Fine-Grained Traffic Flow Prediction*. IEEE Transactions on Big Data (TBD) Special Issue on Urban Computing, 3(2), 194--207.

Truc Viet Le, Siyuan Liu & Hoong Chuin Lau. *A Reinforcement Learning Framework for Trajectory Prediction Under Uncertainty*. The 22nd European Conference on Artificial Intelligence (ECAI 2016), The Hague, The Netherlands.

Truc Viet Le, Siyuan Liu, Hoong Chuin Lau & Ramayya Krishnan. *Predicting Bundles of Spatial Locations from Learning Revealed Preference Data*. The 14th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2015), Istanbul, Turkey.

PATENTS

Truc Viet Le, Sean Saito, Rajalingappaa Shanmugamani & Chaitanya Joshi. *A Graphical Approach to the Multi-match Problem*. Issued Jun 11, 2020. Patent no.: US20200184281A1.

Sean Saito, **Truc Viet Le**, Rajalingappaa Shanmugamani & Chaitanya Joshi. *Representing Sets of Entities for Matching Problems*. Issued Jun 4, 2020. Patent no.: US20200175559A1.

Rajalingappaa Shanmugamani, Chaitanya Joshi, Rajesh Arumugam, Sean Saito & **Truc Viet Le**. *Utilizing Embeddings for Efficient Matching of Entities*. Issued Jun 18, 2020. Patent no.: US20200193511A1.

PROFILES

PERSONAL WEBSITE

<https://trucvietle.me>

LINKEDIN

<https://www.linkedin.com/in/truc-viet-le/>

GITHUB

<https://github.com/vietexob>