Noppayut Sriwatanasakdi

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EDUCATION

Osaka University Apr 2016 – May 2018

Master of Information Science and Technology

- **GPAX**: 4.00/4.00

Chulalongkorn University Jun 2011 – Jun 2015

Bachelor of Engineering in Computer

- **GPAX**: 3.78/4.00 (First class honors)

EXPERIENCE

Asurion Japan Holdings G.K. Nov 2019 – Present

Data scientist Tokyo, Japan

- Provide data-driven solution to support activities related to smartphone protection insurance ranging from device claim process to operations in customer support centers of major Japanese mobile carriers. Act as a technical consultant and a developer for other business units. Present demo and performance estimation of a solution to business users. Collaborate with DevOps for product delivery. Lead development and/or maintenance of the following projects.
- `FAQ Chatbot`: FAQ chatbot to solve user's smartphone issues. Achieved 10% and 25% gains over previous system in absolute trouble resolution and answer display rates respectively. Serving 30k users per month in average (MAU).
- `Keyword suggestion`: a keyword suggestion system that shows search keywords relevant to user input for easier FAQ article access. This system is being used in multiple services, one of which receives 1,000 queries/day.
- `Webclaim validator`: a system for validating user input when filing a device claim through web channel. Significantly reduce the cost of human validator. Serving 30-40 claims per day.
- `Telemetry trouble prediction`: a method to predict user's smartphone issues using real-time telemetry data (such as app usage history). The method is more accurate than guessing with most-common-trouble baselines in top 3, 4, and 5 predictions by large margins.
- `Conversation Segmentation`: a tool for segmenting a conversation between a customer and a call center agent. A conversation is segmented into multiple parts including greeting, user verification, trouble hearing, etc.
- `Text analytic tool`: a text analytic python package for in-company use. Key features include keyword ranking, conversation segmentation, sentiment analysis on product review domain, and wordcloud visualization. Enable business users to do text mining by themselves.
- Performed various ad-hoc data analyses to learn about customer behavior (goals depend on analysis theme).
- Developed a method to classify topics of a customer comment
- **Tools**: Scikit-learn, XGBoost, Gensim, PyTorch, Torchtext, Transformers, Matplotlib, Seaborn, MeCab, Pandas, Docker, Flask, FastAPI, AWS EC2, Lambda

Works Applications Co., Ltd. Apr 2018 – Oct 2019

R&D Engineer Tokyo, Japan

- Worked on research and development of machine learning and NLP solution to business problems such as FAQ chatbot, facility management, resignation prediction, etc.
- **Tools**: Pandas, PyTorch, Seaborn, Scikit-learn, Google Cloud Platform (GAE), Java, Spring, NLTK, Javascript

Guru Square Co., Ltd. Mar – Sep 2015

Part-time programmer Bangkok, Thailand

- Worked on Thai language sentiment analysis, image processing, and computer vision projects.
- **Tools**: Apache Spark, OpenCV, Scikit-learn

Thomson Reuters (Thailand) Ltd. Jun – Aug 2014
QA programmer intern Bangkok, Thailand

- Automated Web UI test cases using Selenium WebDriver.
- Refactored report generation module to improve its overall performance and readability.

Japan Advanced Institute of Science and Technology Mar – May 2014
Internship student Ishikawa, Japan

- Interned in computational neuroscience lab under Assoc. Prof. Hirokazu Tanaka's supervision
- Designed and implemented psychophysical experiments to find relationship between pupil dilation and memory load.

SKILLS

Professional skills : Machine learning, Data mining, Natural Language Processing, Data visualization
Languages : (Preferred) Python, Java, (Secondary) C, C++, JavaScript, Matlab, Scala
Tools (AI/ML/Viz) : Scikit-learn, PyTorch, XGBoost, Transformers, Gensim, Pandas, Numpy, Matplotlib, Seaborn
Frameworks and Environments : Git, Jupyter lab/notebook, Linux command line, Docker, Amazon AWS (EC2, Lambda, ECS, etc.), Google GCP, FastAPI, Flask
Experienced tools : MySQL, Spring framework, Selenium

LANGUAGES

Thai : Native
English : Professional working proficiency (TOEIC 960/990 – 2017, TOEFL-iBT 102/120 – 2019)
Japanese : Limited working proficiency (JLPT N2 – 2017)

AWARDS, HONORS, AND EXTRACURRICULAR EXPERIENCES

Lecturer and mentor, the 4th CAICamp by CPALL Nov – Dec 2021

- Gave a lecture on deep learning to 40 high school students and several CPALL PLC. employees.
- Acted as a co-mentor for a team of 4 high school students in a competition to solve real business problems with AI. The team won the competition and received 100,000 THB. (approx. 344,000 JPY)

Winner of the Thailand NLP Hackathon Jul 2020

- Ranked first place in Thailand online hackathon 2/2020 for the natural language processing task. Teamed up with Nontawat Charoenphakdee and Nuttapong Chairatanakul. This competition was organized by the Artificial Intelligence Association of Thailand (AIAT). Prize: 20,000 THB (approx. 69,000 JPY).

Master degree student with Japanese Government Scholarship (Monbukagakusho) Apr 2016 – Apr 2018

- A scholarship granted by the Japanese government for studying masters degree at Osaka University. The scholarship covers flight tickets, tuition fees, and monthly allowance

Teaching Assistant (TA) Oct 2016 – Feb 2017

- Instructed undergraduate students in Java programming class

PUBLICATIONS

[1] Chairatanakul, N., **Sriwatanasakdi, N.**, Charoenphakdee, N., Liu, X., and Murata, T. "Cross-lingual Transfer for Text Classification with Dictionary-based Heterogeneous Graph", In: Findings of EMNLP 2021. (Long paper)

[2] **Sriwatanasakdi, N.**, Numao, M., and Fukui, K. "Concept Drift Detection for Graph-structured Classifiers under Scarcity of True Labels", In: Proc. of ICTAI, 2017. (Long paper)

PROJECTS

Some selected projects. See more on my Github.

IO-LM

- A language model that speaks like an information-operation-ist (IO) in Thai language based on Multi-head attention model in PyTorch. Trained on news articles from a highly politically-bias publisher.

COVID-QA-TroII

- A Question-answering system that always responds with false covid-19 facts. Core building blocks include a fine-tuned Thai RoBERTa for Q&A and BM25 for document retrieval.

MC-song-generator

- A lyrics generator in Thai language using Markov chains.