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 access to the right FAQ articles. This system is being used in multiple services, one of which has 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.
- 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-Troll

- 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.