

# Noppayut Sriwatanasakdi

✉ noppayut@gmail.com | 🌐 <https://noppayut.github.io> | 🔄 noppayut | 🌐 noppayut

## 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 Engineering*

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

## EXPERIENCE

### Square Enix AI & Arts Alchemy Co., Ltd.

Sep 2022 – Present

*Natural Language Processing Engineer*

Tokyo, Japan

- Work on natural language understanding and generation capabilities of virtual avatars. Involve in both engineering and R&D.
- Maintain and improve natural language processing (NLP) pipeline from training to integrating models into products.
- Collaborate with game designers to bring AI into their work.
- Spearhead development of an ML tool for non-technical users. Responsible for project management, direction setting, design and development of the back-end.
- Develop and maintain data annotation tool.
- **Tools:** Python, C++, PyTorch, Transformers, OpenAI, Triton server, gRPC, ONNX, Docker, Google Cloud Platform, FastAPI, Pydantic, PostgreSQL, Redis

### Asurion Japan Holdings G.K.

Nov 2019 – Aug 2022

*Data scientist*

Tokyo, Japan

- Developed AI/data solutions to support smartphone protection services of major Japanese mobile phone carriers. Acted as a technical consultant and a developer for other business units. Presented demo and performance estimation to business users. Collaborated with DevOps for service delivery. Led development and/or maintenance of several 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.
- **Keyword suggestion:** a system that shows keywords relevant to user input for easier FAQ article search. 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 using human validators. Serving 30-40 claims per day.
- **Telemetry trouble prediction:** a method to predict smartphone issues using real-time telemetry data (e.g. 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.
- Other projects such as identification of topic boundaries in conversations, development of a text analytic tool for non-technical users, customer behavior analysis and user comment classification.
- **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

### Japan Advanced Institute of Science and Technology

Mar – May 2014

*Internship student*

Ishikawa, Japan

## SKILLS

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**Professional skills** : Machine learning, Natural Language Processing, Data mining, System design, Data visualization

**Languages** : (Preferred) Python, C++, (Experienced) Java, C, TypeScript, Matlab, Scala

**Tools (AI/ML/Viz)** : Scikit-learn, PyTorch, XGBoost, Transformers, Gensim, Pandas, Numpy, Triton, Matplotlib, Seaborn

**Frameworks and Environments** : Git, Jupyter lab/notebook, Linux command line, Docker, Amazon AWS (EC2, Lambda, ECS, etc.), Google Cloud Platform, FastAPI, Flask

**Experienced tools** : MySQL, Redis, PostgreSQL, Spring framework, Selenium

## LANGUAGES

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**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

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**Lecturer and mentor, the 4th and 5th Creative AI Camp by CPALL**

Nov 2021 – Dec 2022

**Winner team of the Thailand NLP Hackathon**

Jul 2020

**Master degree student with Japanese Government Scholarship (Monbukagakusho)**

Apr 2016 – Apr 2018

**Teaching Assistant (TA), Java class, Osaka University**

Oct 2016 – Feb 2017

## PUBLICATIONS

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[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)

## OPEN SOURCES AND SIDE PROJECTS

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My open source contributions and hobby projects. See more on my [Github](#).

**NVIDIA/FasterTransformer #460**

- Nvidia's highly optimized transformer models for inference. Fix bugs in Huggingface's Japanese GPT2 conversion to FT model.

**PyThaiNLP/pythainlp #723, #735, #751, #752**

- Thai language NLP toolkit. Implemented new features such as keyword extraction and Thai-to-English transliteration. Bug fixing and documentation.