NONTAWAT **CHAROENPHAKDEE**

Ph.D. Student, Department of Computer Science, The University of Tokyo

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Education

Ph.D. Student in Computer Science, The University of Tokyo   **Sep 2018 - Present**

Supervisor	Masashi Sugiyama
Laboratory website	http://www.ms.k.u-tokyo.ac.jp/
GPAX	4.00 / 4.00

Master of Information Science and Technology, The University of Tokyo   **Sep 2016 - Sep 2018**

Supervisor	Masashi Sugiyama
GPAX	4.00 / 4.00

Bachelor of Computer Engineering, Chulalongkorn University   **Jun 2011 - Jun 2015**

GPAX	3.80 / 4.00 (First class honors)

Research Interests

Loss function, Evaluation metric, Weakly-supervised learning, Learning with reject option, Domain adaptation, Anomaly detection, Speech signal processing, Healthcare data analysis, Natural language processing.

Job Experiences

Research Assistant, RIKEN Center for Advanced Intelligence Project, (Tokyo, Japan)   **Jan 2019 - Present**
- Researching on weakly-supervised learning in the imperfect information learning team.

Part-time Software Developer, HENNGE, (Tokyo, Japan)   **Jun 2016 - Dec 2018**
- Researched and developed a machine learning system for solving the bipartite ranking task.
- Optimized the memory/time complexity for searching in mail archiving system.

Software Developer, CODIUM Company Limited, (Bangkok, Thailand)   **Feb 2015 - Feb 2016**
- Developed a web application for customer relationship management using Django web framework.
- Developed an iPad application and conducted requirement gathering and analysis.

Internship Experiences

Research Intern, Preferred Networks, (Tokyo, Japan)   **Aug 2019 - Sep 2019**
- Research topic: Open-set few-shot speaker identification from speech signal data
- Research blog: https://tech.preferred.jp/en/blog/open-set-few-shot-speaker-identification/

Research Intern, Computer Science, Chulalongkorn University, (Bangkok, Thailand)   **Feb 2019 - Mar 2019**
- Research topic: Learning only from relevant keywords and unlabeled documents.
- Result: A conference paper published in EMNLP-IJCNLP 2019.

Research Intern, R&D Team of NTT Data Corporation, (Tokyo, Japan)   **Jan 2015 - Feb 2015**
- Developed and tested a telepresence iOS application using telerobotics technology.

iOS Developer, CODIUM Company Limited, (Bangkok, Thailand)   **Jul 2014 - Sep 2014**
- Developed an iPad enterprise application for the Japanese car maintenance company.

Research Student, JAIST, (Ishikawa, Japan)   **Mar 2014 - May 2014**
- Researched on fundamental frequency estimation of reverberant speech with Professor Masashi Unoki.

Professional Activities

Journal Reviewer:	Machine Learning, Neural Networks, Springer Nature Computer Science
Conference Reviewer:	ICLR 2020, ICML 2020 (Top 50%), ACML 2020, NeurIPS 2020 (Top 10%), CVPR 2021, ICML 2021 (Expert reviewer)
Student Volunteer:	ACML 2020

Publications

👥 Conference Proceedings

Nontawat Charoenphakdee*, Jayakorn Vongkulbhisal*, Nuttapong Chairatanakul, and Masashi Sugiyama. "On Focal Loss for Class-Posterior Probability Estimation: A Theoretical Perspective". In: **CVPR** *(to appear)*. 2021.

Voot Tangkaratt, **Nontawat Charoenphakdee**, and Masashi Sugiyama. "Robust Imitation Learning from Noisy Demonstrations". In: **AISTATS** *(to appear)*. 2021.

Yivan Zhang, **Nontawat Charoenphakdee**, Zhenguo Wu, and Masashi Sugiyama. "Learning from Aggregate Observations". In: **NeurIPS**. 2020.

Nontawat Charoenphakdee, Jongyeong Lee, Yiping Jin, Dittaya Wanvarie, and Masashi Sugiyama. "Learning Only from Relevant Keywords and Unlabeled Documents". In: **EMNLP-IJCNLP**. 2019.

Nontawat Charoenphakdee, Jongyeong Lee, and Masashi Sugiyama. "On Symmetric Losses for Learning from Corrupted Labels". In: **ICML**. 2019.

Nontawat Charoenphakdee and Masashi Sugiyama. "Positive-Unlabeled Classification under Class Prior Shift and Asymmetric Error". In: **SDM**. 2019.

Seiichi Kuroki, **Nontawat Charoenphakdee**, Han Bao, Junya Honda, Issei Sato, and Masashi Sugiyama. "Unsupervised Domain Adaptation Based on Source-guided Discrepancy". In: **AAAI**. 2019.

Chenri Ni, **Nontawat Charoenphakdee**, Junya Honda, and Masashi Sugiyama. "On the Calibration of Multiclass Classification with Rejection". In: **NeurIPS**. 2019.

Yueh-Hua Wu, **Nontawat Charoenphakdee**, Han Bao, Voot Tangkaratt, and Masashi Sugiyama. "Imitation Learning from Imperfect Demonstration". In: **ICML**. 2019.

📑 Journal Articles

Zhenghang Cui, **Nontawat Charoenphakdee**, Issei Sato, and Masashi Sugiyama. "Classification from Triplet Comparison Data". In: **Neural Computation** (2020).

📄 Preprints

Nontawat Charoenphakdee, Jongyeong Lee, and Masashi Sugiyama. *A Symmetric Loss Perspective of Reliable Machine Learning*. arXiv preprint arXiv:2101.01366. 2021.

Nontawat Charoenphakdee, Zhenghang Cui, Yivan Zhang, and Masashi Sugiyama. *Classification with Rejection Based on Cost-sensitive Classification*. arXiv preprint arXiv:2010.11748. 2020.

Hideaki Imamura, **Nontawat Charoenphakdee**, Futoshi Futami, Issei Sato, Junya Honda, and Masashi Sugiyama. *Time-varying Gaussian Process Bandit Optimization with Non-constant Evaluation Time*. arXiv preprint arXiv:2003.04691. 2020.

Jongyeong Lee, **Nontawat Charoenphakdee**, Seiichi Kuroki, and Masashi Sugiyama. *Domain Discrepancy Measure for Complex Models in Unsupervised Domain Adaptation*. arXiv preprint arXiv:1901.10654. 2019.

Taira Tsuchiya, **Nontawat Charoenphakdee**, Issei Sato, and Masashi Sugiyama. *Semi-Supervised Ordinal Regression Based on Empirical Risk Minimization*. arXiv preprint arXiv:1901.11351. 2019.

Yivan Zhang, **Nontawat Charoenphakdee**, and Masashi Sugiyama. *Learning from Indirect Observations*. arXiv preprint arXiv:1910.04394. 2019.

Awards and Honors

- **Google PhD Fellowship Recipient 2020 in Machine learning**: A fellowship program provided by Google to recognize and support outstanding graduate students doing research in areas relevant to computer science and related fields.

- **Participant of the Global Young Scientists Summit 2020** Selected as an participant in the 8th GYSS organised by the Singapore's National Research Foundation. GYSS is an international gathering of young researchers from all over the world in Singapore, who will be mentored by Nobel Laureates, Fields Medalists, Millennium Technology Prize winners, and Turing Award winners over a four-day summit. I also gave a poster presentation of my master's thesis "Machine learning from Noisy Labels: An Approach Based on Symmetric Losses".

- **Winner of Thailand NLP Hackathon 2/2020**: Received the first place award from Thailand online hackathon 2/2020 for the natural language processing task. Teamed up with Noppayut Sriwatanasakdi and Nuttapong Chairatanakul. This competition was organized by the Artificial Intelligence Association of Thailand. Prize: 20,000 THB.

- **Monbukagakusho (MEXT) Scholarship**: Received scholarship granted by the Japanese government for studying both master's and doctor's degree in the University of Tokyo. The scholarship covers flight tickets to Japan, tuition fee, and monthly allowance.

- **AIP Challenge Program**: Awarded a research funding for young researchers provided by Japan Science and Technology Agency (JST): 1,000,000 JPY.

- **ICML 2019 Travel Award**: Awarded financial support for attending the 36th International Conference on Machine Learning in Long beach, California, United States: 1,700 USD.
- **NeurIPS 2019 Travel Award**: Awarded financial support for attending 33rd Conference on Neural Information Processing System in Vancouver, Canada: 7 nights of a hotel stay.
- **ICML 2019 Travel Award**: Awarded financial support for attending the 36th International Conference on Machine Learning in Long beach, California, United States: 1,700 USD.
- **Representative Student of IST**: Selected as an only one student from all students in the faculty of information science and technology (IST), the University of Tokyo in September 2018. The decision was based on academic achievements and the master's thesis.
- **First Class Honors**: Bachelor of Engineering, Chulalongkorn University.

Languages

Thai:	Native
English:	TOEFL-iBT: 105/120 (Mar 2016)
Japanese:	JLPT N2 (Dec 2016)