Song Duong

Paris, France duong.spthien@hotmail.fr

https://scholar.google.com/citations?user=xieCwE4AAAAJ

https://www.linkedin.com/in/song-duong-b73923175/

https://www.github.com/sngdng/

https://sngdng.github.io/

PROFILE

PhD student in NLP with a research focus on efficient sequence modeling and hallucination mitigation. Published in ICLR, EACL (Best Paper), and AISTATS. Applied research experience at FAIR, Microsoft, and Criteo. Passionate about developing efficient, faithful, and impactful ML systems for real-world use.

RESEARCH

Jul 2022 – Jul 2025

PhD Student (NLP)

Criteo AI Lab, Paris & CNRS-ISIR, Sorbonne University, Paris

Advisors: *Patrick Gallinari* and *Alberto Lumbreras*

Publications:

- S. Duong*, F. Le Bronnec*, A. Allauzen, V. Guigue, A. Lumbreras, L. Soulier, P. Gallinari. "SCOPE: A Self-supervised Framework for Improving Faithfulness in Conditional Text Generation". *ICLR 2025*.
- F. Le Bronnec*, S. Duong*, M. Ravaut, A. Allauzen, N. F. Chen, V. Guigue, A. Lumbreras, L. Soulier, P. Gallinari. "LOCOST: State-Space Models for Long Document Abstractive Summarization". *EACL 2024* – **Best Paper Award**.
- S. Duong, A. Lumbreras, M. Gartrell, P. Gallinari. "Learning from Multiple Sources for Data-to-text and Text-to-data". *AISTATS 2023*.

Jan 2022 – Jun 2022

Researcher (NLP)

Criteo AI Lab, Paris

- Study augmented latent variable models to handle multiple sources of structured data formats while learning in an unsupervised setting.
- Investigate the long-term potential of LLMs at Criteo.

May 2021 – Sep 2021

Research intern (RL)

Facebook AI Research, Paris

- Propose a Continual Learning (CL) Benchmark to efficiently evaluate Continual RL agents.
- Design and implement a fully functional platform for evaluating CL models.
- Provide benchmarks for several CL baselines adapted for Deep RL.
- Contribute to the *SaLinA* library for sequential decision models:
  L. Denoyer, A. de la Fuente, S. Duong, J.-B. Gaya, P.-A. Kamienny, D. H. Thompson. "SaLinA: Sequential Learning of Agents". 2021.

WORK EXPERIENCE

Jan 2020 – Jul 2020

ML intern

Saildrone, Alameda

- Design and train a series of computer vision models for ocean classification.
- Optimize the model for inference on low-power GPUs (Jetson Nano) using pruning & knowledge distillation techniques.

Jul 2019 – Dec 2019

IoT & ML intern

Microsoft, Issy-les-Moulineaux

- Design lightweight neural networks for inferencing at the Edge through graph optimization and post-training quantization.
- Deploy classification and object detection models on Vision AI Dev Kit.
- Contribute to Azure Machine Learning and Azure IoT Edge documentations.

EDUCATION

2020 – 2021

Master's degree in Machine Learning and Applied Mathematics

École normale supérieure Paris-Saclay, Paris

- *Courses include*: Reinforcement Learning, Sequential Learning, Bayesian machine learning, Object Recognition and Computer Vision, Computational statistics, Convex optimization, Computational optimal transport.

2017 – 2021

Master's degree in Applied Mathematics and Computer Science

École des Ponts Paristech, Paris

- *Courses include*: Stochastic Process, Advanced Programming and Algorithms (C++), Software Design and Development (Python), Statistics and Data Analysis (R), Operational Research, Optimisation and Control, Machine Learning.

2015 – 2017

Preparatory classes for the Grandes Écoles

Lycée Louis-le-Grand (High School), Paris

- Two-year undergraduate intensive course in Mathematics and Physics to prepare for the Grandes Écoles (graduate engineering schools).

2012 – 2015

Baccalauréat with major in Maths

Lycée Louis-le-Grand (High School), Paris

- Obtained with first-class honours.

SKILLS

Languages English: Fluent; French: Fluent; Vietnamese: Native (mother tongue); German: Intermediate (B1 level); Chinese: Beginner

Programming skills Proficiency in: Python, Pytorch; Familiar with: Tensorflow, C++.

AWARDS & COMPETITIONS

- Best Paper Award, EACL 2024
- PROMYS (Boston University) – Summer math program, selected 2x
- ITYM 2015 – 2nd Place (International Tournament of Young Mathematicians)
- TFJM² – 2nd Place (2014, 2015); Hon. Mention (2013)
- Facebook Paris Hackathon (2019)
- Kiro Hackathon (2018, 2019) – Operations Research