

# Patrick J. Ramos

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## Education

*June 2022 – July 2023*

**Ateneo de Manila University**

*MS Computer Science*

Ateneo Freshman Merit Scholarship Thesis: "DistillCLIP - Knowledge Distillation of Contrastive Language-Image Pretrained Models"

*August 2018 – May 2022*

**Ateneo de Manila University**

*BSMS Computer Science, Specialization in Data Science and Analytics*

Magna Cum Laude

Ateneo Freshman Merit Scholarship

Thesis: "Adaptive Aggregation of Embeddings in Transformers for Video"

## Work Experience

*October 2023 – present*

**Intelligence and Sensing Lab.**

**Osaka University**

*Research Student*

Conducting research under the MEXT Scholarship

*January 2022*

**Social Computing Laboratory**

**Nara Institute of Science and Technology**

*Intern*

Conducted research comparing inferred emotions of writers and readers of Japanese Tweets on vaccinations to Japanese vaccination measures by fine-tuning a BERT

*July 2021 – August 2021*

**Ateneo Laboratory for Intelligent Visual Environment**

**Ateneo de Manila University**

*Intern*

Conducted research on the use of the DETR object detection

framework with Transformer and MLP-based backbones for medical mask detection

## Publications

- [1] Patrick Ramos, Raphael Alampay, and Patricia Abu. Knowledge distillation with relative representations for image representation learning. In *Progress on Pattern Classification, Image Processing and Communications - Proceedings of the CORES and IP&C Conferences 2023*, 2023.
- [2] Patrick John Ramos, Kiki Ferawati, Kongmeng Liew, Eiji Aramaki, and Shoko Wakamiya. Emotion analysis of writers and readers of Japanese tweets on vaccinations. In *Proceedings of the 12th Workshop on Computational Approaches to Subjectivity, Sentiment & Social Media Analysis*, pages 95–103, Dublin, Ireland, May 2022. Association for Computational Linguistics.

## Research Interests

- model architecture and pretraining objectives for text, image, and vision-language representation learning
- part-whole hierarchical parsing of images for robust image representation learning
- foundation model applications

## Skills

- implementing own ideas and those from papers with frameworks such as:
  - PyTorch
  - HuggingFace
  - pandas
  - NumPy
  - Optuna
- reading machine learning papers
- training deep learning models
- data visualization