

Jane Arleth dela Cruz

PhD Candidate | Lecturer

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EDUCATION

SEP 2022 – PRESENT – Nijmegen, Netherlands

DOCTOR OF PHILOSOPHY IN NATURAL LANGUAGE PROCESSING – Radboud University

Project: Interpretable Information Extraction for Disaster Relief

- o Funding: NWO (Dutch Research Council) Research Project, InDeep: Interpreting Deep Learning Models for Text and Sound [🔗](#)
- o Activities: SIKS Research School (Netherlands Research School for Information and Knowledge Systems) [🔗](#), Radboud Center for Language and Speech Technology Group [🔗](#), AmsterdamNLP [🔗](#), ELLIS Unit Nijmegen

AUG 2017 – JUN 2019 – Quezon City, Philippines

MASTER OF SCIENCE IN ELECTRONICS ENGINEERING – Ateneo de Manila University

Thesis: Design of a Disaster Information System using Mobile Cloud Wireless Mesh with Delay Tolerant Network

- o Scholarship: Department of Science and Technology (PH Government) – Engineering Research and Development Technology Scholarship (**100% Tuition and Fees**, University Athletic Scholarship (**100% Dormitory**))

JUN 2012 – MAY 2017 – Quezon City, Philippines

BACHELOR OF SCIENCE IN ELECTRONICS AND COMMUNICATIONS ENGINEERING – Ateneo de Manila University

Thesis: Design and Development of a Decision Support System using Near Cloud Nodes for Disaster Management

- o Scholarship: Fr. Thomas Cannon, SJ Scholarship for Southern Leyte, University Financial Aid Scholarship (**100% Tuition, Fees and Dormitory**)

WORK EXPERIENCE

SEP 2022 – CURRENT – Netherlands

PHD CANDIDATE / LECTURER – RADBOUD UNIVERSITY

- o Conduct research on interpretable information extraction for disaster relief, contributing to the NWO-funded (Dutch Research Council) research project, InDeep: Interpreting Deep Learning Models for Text and Sound.
- o Provide lectures for Bachelor-level students and supervise Bachelor and Master Thesis.

JAN 2020 – JUL 2022 – Philippines

DATA SCIENTIST – AYALA CORPORATION

- o Experiment and do proof-of-concept development work, data analysis, and data modelling, aligned with the C-level strategy and agenda of the Ayala Group, one of the largest and most diversified business groups in the Philippines
- o Developed a comprehensive Location Intelligence Dashboard used to guide in decision-making for new development and pricing that uses machine learning models that provide "geospatial wealth scoring" of areas.
- o Co-developed the optimization algorithm used for COVID-19 vaccine delivery and scheduling COVID-19 vaccination program that fully inoculated about 500,000 employees and their family, translating into 1 million vaccinations across 20+ vaccination sites around the Philippines.

AUG 2019 – JAN 2020 – Philippines

ASSOCIATE TECHNICAL CONSULTANT – SAS INSTITUTE, INC.

- o Member of SAS Asia-Pacific Professional Services and Delivery team as a Cloud Transformation Systems Engineer.
- o Provided data analytics and cloud consulting services to clients during pre-sales and post-sales activities.

AUG 2016 – AUG 2019 – Philippines

RESEARCH ASSISTANT – ATENEO INNOVATION CENTER

- o Contributed to research projects and papers focused on Disaster Management Systems, Ubiquitous Computing, IoT, and Machine Learning. Organized an International Workshop on Disaster Response Model Using Vehicle Communication attended by Asia-Pacific research collaborators. Co-advised undergraduate students of AIC for their thesis.

INTERNSHIPS

JAN 2019 – Japan

RESEARCH INTERN – NARA INSTITUTE OF SCIENCE AND TECHNOLOGY

- o Project: Real-time Training of Daily Living Activity Recognition Models Using Distributed Edge Computing under the Ubiquitous Computing Systems Laboratory.

JUN 2018 – AUG 2018 – Switzerland

RESEARCH INTERN – CERN (EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH)

- o One of the 41 selected students (out of 2,000 globally) of the CERN Openlab Summer Student Program.
- o Project: Advanced Simulations using Volunteer Computing under the IT – Compute and Monitoring Group. Demonstrated for the first time that Machine Learning using keras and tensorflow can run as a volunteer computing application (BOINC) using containers (Singularity).

MAR 2018 – APR 2018, & JAN 2019 – FEB 2019 – Japan

SOFTWARE ENGINEERING INTERN – WEATHERNEWS, INC.

- o Conducted image processing techniques for Airport visibility measurement analysis and short-term Airport visibility forecasting. Implemented sakura (cherry blossoms) bloom prediction using crowd-sourced images and weather data using Machine Learning.

SELECT PUBLICATIONS

2017 – CURRENT

Select Research Papers (see [Google Scholar](#) – for full list)

1. **dela Cruz, J. A.**, Hendrickx, I., & Larson M (2024). "NoNE Found: Explaining the Output of Sequence-to-Sequence Models When No Named Entity Is Recognized." *World Conference on Explainable Artificial Intelligence*. Cham: Springer Nature Switzerland, 2024.. https://doi.org/10.1007/978-3-031-63787-2_14
2. **dela Cruz, J. A.**, Hendrickx, I., Larson, M. (2023). "Towards XAI for Information Extraction on Online Media Data for Disaster Risk Management". In 20th International ISCRAM Conference, 478–486. <http://dx.doi.org/10.59297/BHAE3912>
3. **dela Cruz, J. A.**, Hendrickx, I., Larson, M. (2022). "Understanding Fine-tuned BERT Models for Flood Location Extraction on Twitter Data". In *Working Notes Proceedings of the MediaEval 2022 Workshop*. <https://ceur-ws.org/Vol-3583/>
4. **dela Cruz, J. A.**, Libatique, N. J., & Tangonan, G. (2019). "Design of a Disaster Information System using Mobile Cloud Wireless Mesh with Delay Tolerant Network". In *2019 IEEE Global Humanitarian Technology Conference (GHTC)*, 1–8. <https://doi.org/10.1109/GHTC46095.2019.9033450>
5. Lagazo, D., **dela Cruz, J. A.**, Solpico, D., Honrado, J., Abrajano, G., Libatique, N. J. C., & Tangonan, G. L. (2018). "Resilient Communications and Information Systems for Disaster-Preparedness using UAVs, Beacons and Data Aggregators, via Delay-Tolerant Networks on sub-GHz Frequencies". In *TENCON 2018 – 2018 IEEE Region 10 Conference*, 1290–1294. <https://doi.org/10.1109/TENCON.2018.8650426>.

SKILLS

python (pytorch, tensorflow, openai, huggingface, pandas, numpy, scikit-learn), git, bash, docker, AWS, Databricks, CARTO

OTHER TRAINING

2021 – 2022 – Online

Deep Learning Specialization – DeepLearning.AI

5-Course Specialization: Neural Networks and Deep Learning, Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization, Structuring Machine Learning Projects, Convolutional Neural Networks, and Sequence Models

2021 – Online

Negotiation and Influence – Emeritus Online in collaboration with MIT Management Executive Education

10-week, 8-module course on negotiation strategies to understand, plan and achieve objectives in a variety of contexts

HOBBIES AND INTERESTS

Table Tennis, Strength Training, Painting (Acrylic, Watercolor), Reading (Historical Fiction, Non-Fiction, Business, Classics)