Chandler Timm C. Doloriel

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GitHub: https://github.com/chandlerbing65nm
Portfolio: https://chandlerbing65nm.github.io/

EXPERIENCE

09/2020 - Present

Nanosatellite Engineer,
EEE Institute, Diliman, Philippines
Responsibilities:

- Develop AI vision algorithm for image classification unit (ICU) using TensorFlow/PyTorch and deploy it in an embedded device.
- Improve and refine the legacy software of onboard computer (OBC) in a 1U cube satellite.
- Conduct space environment test and analysis of the 1U cube satellite to ensure its functionality and operation in space.

04/2019 – 09/2020

Product Engineer,
Analog Devices, Inc., Cavite, Philippines
Responsibilities:

- Perform program revision of faulty product tests (written in C) to solve the quality issues arising from old specifications.
- Validate test condition and method of legacy product's software to see if changes are needed to prevent costumer concerns.
- Implement statistical methods to detect maverick lots and provide effective dispositions.

EDUCATION

2020 - Present

Master of Science in Electrical Engineering,
University of the Philippines-Diliman, Philippines
Kyushu Institute of Technology, Japan (Sandwich)

- **Research**: Object Detection in Aerial Images with Attention-based Loss
- **Relevant Subjects**: Digital Signal Processing, Satellite Development, Space Environment and Tests

2013 - 2018

Bachelor of Science in Electronics Engineering,
Mindanao State University – Iligan Institute of Technology, Philippines

- **Capstone**: Design of Analog Integrated Circuits with focus in Amplifiers and References
- **Relevant Subjects**: Analog IC Design, Digital VLSI Design

SCHOLARSHIPS

Space Science and Technology Proliferation through University Partnership (STeP-UP) Graduate Scholarship

Department of Science and Technology - Science Education Institute (DOST-SEI) Undergraduate Scholarship

PUBLICATIONS

C. T. C. Doloriel and A. B. Caberos, "*High Speed CMOS Pulse Generator Based on Analog Ramp Signal Implemented in 65nm CMOS Process Technology*," Proc. - 2019 19th Int. Symp. Commun. Inf. Technol. Isc. 2019, pp. 578–583, 2019, doi: 10.1109/ISCIT.2019.8905203.

R. V. C. Adrivan, R. K. G. Conde, A. B. Caberos, and **C. T. C. Doloriel**, "*An Energy Combiner for Multi-Source Energy Harvesting with Charge Control*," Proc. - 2019 19th Int. Symp. Commun. Inf. Technol. Isc. 2019, pp. 371–376, 2019, doi: 10.1109/ISCIT.2019.8905138.

SPECIALIZATION

Mathematics for Machine Learning
by University College London on Coursera. Specialization Certificate (https://bit.ly/3l7YHz2) earned on March 13, 2022.

Generative Adversarial Networks
by DeepLearning.AI on Coursera. Specialization Certificate (https://bit.ly/3zO9DYc) earned on August 11, 2021.

TensorFlow Developer
by DeepLearning.AI on Coursera. Specialization Certificate (https://bit.ly/38E0A07) earned on June 9, 2021.

Deep Learning
by DeepLearning.AI on Coursera. Specialization Certificate (https://bit.ly/3n2Pdak) earned on May 5, 2021.

Machine Learning
by DeepLearning.AI on Coursera. Specialization Certificate (https://bit.ly/3BxKPV0) earned on February 24, 2021.

PROJECTS

Pan-Cancer Nuclei Instance Segmentation
This project is about Instance Segmentation of 5 Different Cancer Nuclei Across 19 Unique Tissue Types.
Project link: https://bit.ly/3wdxjWG

Face Mask Detection with Empirical Attention
This project is about object detection of face masks worn by people during the COVID19 pandemic.
Project link: https://bit.ly/3NbLwsT

Cassava Leaf Disease Classification
This is my project for image classification of cassava leaf diseases. This is based on the Kaggle competition of the same title.
Project link: https://bit.ly/3mnpK9E

Onboard Satellite Image Recognition
I created this project to be used to classify Earth, Space and Sun-Flare images onboard a nanosatellite. Its purpose is to optimize the bandwidth used in sending the data to the ground station during downlink.
Project link: https://bit.ly/2X36Z2D