Nelson Yalta

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Education

2017-2020	**Doctor of Engineering**, Waseda University, Tokyo, Japan.
2015-2020	**Graduated Student of Leading Graduate Program for Embodiment Informatics** , Waseda University, Tokyo, Japan.
2015-2017	**Master's in Engineering**, Waseda University, Tokyo, Japan.
2004-2009	**Bachelor's degree in Electronic Engineering**, Universidad Privada Antenor Orrego (UPAO), Trujillo, Peru.

Research interests

Machine Learning, Computer Vision, Speech Recognition, Robot Audition, Image and Video Processing, Human-Robot Interaction, Human-Machine Interfaces.

Scholarship and Awards

2014-2020	**Ministry of Education, Science and Technology (MEXT) Japan Scholarship - Embassy Recommendation** - Waseda University, Tokyo, Japan.

Publications (Conference, Refereed)

1. Pin-Chu Yang, Mohammed Al-Sada, Chang-Chieh Chiu, Kevin Kuo, Tito Pradhono Tomo, Kanata Suzuki, Nelson Yalta, Kuo-Hao Shu, Tetsuya Ogata, "**HATSUKI: An anime character like robot figure platform with anime-style expressions and imitation learning-based action generation**", Ro-MAN 2020. (accepted)
2. Pin-Chu Yang, Kanata Suzuki, Kanata Suzuki, Chang-Chieh Chiu, Tito Pradhono Tomo, Nelson Yalta et. al. "**Effective Imitation Learning Robot Platform using Game Engine.**", Proc. ROBOMECH '21(accepted).
3. Hirofumi Inaguma, Shun Kiyono, Kevin Duh, Shigeki Karita, Nelson Enrique Yalta Soplin, Tomoki Hayashi, and Shinji Watanabe, "**ESPnet-ST: All-in-One Speech Translation Toolkit**," Proc. ACL'20 (demo paper) (accepted)
4. Shigeki Karita, Nanxin Chen, Tomoki Hayashi, Takaaki Hori, Hirofumi Inaguma, Ziyan Jiang, Masao Someki, Nelson Enrique Yalta Soplin, Ryuichi Yamamoto, Xiaofei Wang, Shinji Watanabe, Takenori Yoshimura, Wangyou Zhang, "**A COMPARATIVE STUDY ON TRANSFORMER VS RNN IN SPEECH APPLICATIONS**," Proc. ASRU'19 (accepted).

5. N. Yalta, S. Watanabe, T. Hori, K. Nakadai, T. Ogata, **CNN-based MultiChannel End-to-End Speech Recognition for everyday home environments**, Proc EUSIPCO'19 (accepted).
6. N. Yalta, S. Watanabe, K. Nakadai, T. Ogata, **Weakly Supervised Deep Recurrent Neural Networks for Basic Dance Step Generation**, IJCNN'19 (accepted).
7. Shigeki Karita, Nelson Yalta, Shinji Watanabe, Marc Delcroix, Atsunori Ogawa and Tomohiro Nakatani, "**Improving Transformer Based End-to-End Speech Recognition with Connectionist Temporal Classification and Language Model Integration**", Proc. Interspeech'19 (accepted).
8. N. Yalta, K. Nakadai, T. Ogata, **Sound source localization using deep learning models**, in Journal of Robotics and Mechatronics 29, February 2017

Publications (Workshops)

1. Shota Horiguchi, Nelson Yalta, Leibny Paola García-Perera, et al. "**The Hitachi-JHU DIHARD III System: Competitive End-to-End Neural Diarization and X-Vector Clustering Systems Combined by DOVER-Lap**.", The Third DIHARD Diarization Challenge 2021.
2. Nelson Yalta, Takashi Sumiyoshi, Yohei Kawaguchi. "**THE HITACHI DCASE 2021 TASK 3 SYSTEM: HANDLING DIRECTIVE INTERFERENCE WITH SELF ATTENTION LAYERS Technical Report**." (2021), DCASE 2021 Challenge.
3. Naoyuki Kanda, Rintaro Ikeshita, Shota Horiguchi, Yusuke Fujita, Kenji Nagamatsu, Xiaofei Wang, Vimal Manohar, Nelson Yalta, et al. "**The Hitachi/JHU CHiME-5 system: Advances in speech recognition for everyday home environments using multiple microphone arrays**." 5th International Workshop on Speech Processing in Everyday Environments (CHiME 2018).

Internships

Aug 2019-Sept 2019	**Preferred Networks Inc**. – Japan. Internship working on speech recognition under supervision of Dr. Motoki Sato.
Apr 2018-Sept 2018	**Center for Language and Speech Processing - Johns Hopkins University.** Visiting graduate student working on multichannel end-to-end speech recognition systems under supervision of Prof. Shinji Watanabe.
August 2015	**Honda Research Institute – Japan.** Visiting researcher working on speech enhancement using deep learning under supervision of Prof. Kazuhiro Nakadai.

Work Experience

April 2020	**AI Researcher - HITACHI.** Full-time Researcher at Hitachi R&D (CRL).
Sept 2016-July 2017	**Information Technology Coordinator Hilton Tokyo Bay.** Visiting graduate Part-Time employer who perform both technical and

	administrative tasks to ensure functionality and efficiency of computer and server systems of the company.
Jan 2013 – Aug 2013	**Operation Supervisor – Garcia E.I.R.L. Peru.** Engineer in charge of the installation and setting up of the telemetric, automation, instrumentation projects, where the company provides support, such as GOLD FIELDS Mining Company, Yanacocha Mining Company S.R.L., and Rio Tinto Peru Mining

Volunteer Experience

Jan. 2024	**Science Clubs Peru 2024.** Instructor Club title: My PC can talk and sing – Implementing audio synthesizers using AI.
Oct. 2022	**Science Clubs International 2022.** Instructor Club title: No label no life – Managing audio processing tasks with self-supervised learning.
Oct. 2021	**Science Clubs Peru 2021.** Instructor Club title: Talking with Computer.
Mar. 2021 – Dec. 2021	**Research Coordinator.** Data Science Research Peru (NPO).

Seminar and Congresses

The 2019 International Joint Conference on Neural Networks (IJCNN)
Weakly Supervised Deep Recurrent Neural Networks for Basic Dance Step Generation
July 2019 Intercontinental Budapest Hotel – Budapest – Hungary

Programming Skills

Programming: Python, Matlab/Scilab/Octave, C++, C#, Caffe, pyTorch, Tensorflow, Chainer.
CG: Unity/UE4, Motionbuilder.