VIET-NHAT NGUYEN

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District 1, Ho Chi Minh City, Vietnam

EDUCATION

University of Trento, Italy *Sep 2018 - Oct 2020*
Master of Science in Computer Science GPA 29.16/30
Graduated with cum laude

VNU-HCM, University of Science, Vietnam *Sep 2013 - July 2017*
Bachelor of Science in Computer Science GPA 8.22/10
Graduated with honors, ranked 2nd in the CS class

PUBLICATION

. Viet-Nhat Nguyen, Mostafa Sadeghi, Elisa Ricci, Xavier Alameda-Pineda. Deep Variational Generative Models for Audio-visual Speech Separation. In Proceedings of *2021 IEEE 31st International Workshop on Machine Learning for Signal Processing*.

. Shell Xu Hu*, Md Rifat Arefin*, Viet-Nhat Nguyen*, Alish Dipani, Xaq Pitkow, Andreas Savas Tolias. AvaTr: One-Shot Speaker Extraction with Transformers. In Proceedings of *InterSpeech 2021*.

. Mattia Antonino Di Gangi, Viet-Nhat Nguyen, Matteo Negri, Marco Turchi. Instance-Based Model Adaptation for Direct Speech Translation. In Proceedings of *International Conference on Acoustics, Speech, and Signal Processing 2020*.

. Mattia A. Di Gangi, Matteo Negri, Viet-Nhat Nguyen, Amirhossein Tebbifakhr, Marco Turchi. Data Augmentation for End-to-End Speech Translation: FBK@IWSLT'19. In Proceedings of *International Workshop on Spoken Language Translation 2019*.

WORK EXPERIENCE

Nethermind, UK *Jun 2024 - Present*
AI Engineer

. Built AI agents for internal use — virtual employees equipped with skills defined via a custom no-code platform and access to internal data.
. Designed a system to manage the reasoning processes of AI agents, mimicking human thinking patterns.
. Built a knowledge graph of internal data using Neo4J.

Recursive AI, Japan *Apr 2022 - May 2024*
Lead Machine Learning Engineer

. Led the Image Team in developing custom AI solutions to improve business efficiency and sustainability.
. Fine-tuned Stable Diffusion models to generate enhanced Japanese scenes. Deployed to GCP with Kubernetes.
. Used implicit neural representations to generate high-resolution weather maps from weather station and satellite data.
. Trained continuous conditional GANs and diffusion models for generating electron microscopy images from material formulas.

Baylor College of Medicine, US   *Dec 2020 - Dec 2021*
Research Machine Learning Engineer

. Worked on a spinoff from http://ninai.org funded by the U.S. government, focusing on leveraging brain signals from the auditory cortex to build robust, adversarially-resistant machine learning models.
. Built and trained Transformer models for audio separation.

VNG Corporation, Vietnam   *Nov 2017 - Sep 2018*
Data Scientist, AI Lab, Zalo Group

Developed and implemented various algorithms for face detection and facial landmarking; Contributed to the building of an image analysis pipeline for user-generated content uploaded to the Zalo platform.

INTERNSHIP

Inria Grenoble, France   *Feb 2020 - Aug 2020*
Research Intern, Perception Team

Researched audio-visual speech separation from single-channel mixed speech and video frames using conditional variational autoencoders (CVAEs) and probabilistic inference.

Fondazione Bruno Kessler Institute, Italy   *July 2019 - Oct 2019*
Research Intern, Machine Translation Group

Applied Transformer models to speech translation. Proposed an instance selection method to improve translation quality and analyzed semantic and prosodic features in speech signals.

SKILLS

. **Machine Learning & Deep Learning:** Experienced with model training, fine-tuning (transformers, CNNs, GANs, diffusion models); evaluation and error analysis.
. **ML Systems Design:** Skilled in designing end-to-end ML pipelines: from data ingestion, preprocessing, training, and evaluation to deployment and monitoring in production environments.
. **Data Engineering:** Strong experience with data collection, web scraping, preprocessing, feature engineering, and handling large-scale structured and unstructured data.
. **Programming Languages:** Proficient in Python, with working knowledge of C/C++, SQL, JavaScript.
. **Frameworks & Libraries:** Deep expertise in PyTorch, TensorFlow, HuggingFace Transformers, Scikit-learn, OpenCV, Pandas, NumPy;
. **MLOps & DevOps Tools:** Practical experience with Docker, Git, APIs, experiment tracking, and deployment workflows; familiar with GCP and cloud services for scalable ML systems.
. **Other Tools & Technologies:** Comfortable with Elasticsearch, Selenium, Playwright, general back-end development for ML productization.

ACHIEVEMENT

. University of Trento Scholarship for excellent students, 2018, 2019.
. Italian Ministry of Foreign Affairs and International Cooperation scholarship for higher education degree (MAECI scholarship).
. Third prize in the Computer Programming Olympiad at HCMC University of Science, 2017
. Third prize in the ACM-ICPC Vietnam Southern Provincial Programming Contest, 2016.
. Twelfth place in the ACM-ICPC Vietnam Southern Provincial Programming Contest, 2015.
. KMS Technology scholarship for excellent informatics student, 2015.
. Second prize in the Nghe An Province Olympiad in Informatics, 2013.