Neil Scheidwasser

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Engineer with a strong focus on data science and software development, currently working as a PhD Fellow at the University of Copenhagen. My research is concerned with applying machine learning to diverse areas of life science, including speech processing, neuroscience, and public health.

Education

2022 –	**Ph.D., University of Copenhagen** in Health Data Science and AI Keywords: pandemic preparedness, phylogenetics, computer vision, bioinformatics Affiliated with **Imperial College London**
2019 – 2022	**M.Sc. , EPFL** in Life Sciences Engineering (Distrinction). Thesis title: *Analytical approaches to data from human virtual reality (VR) and neuro-physiology studies*. Minor: computational neuroscience

Experience

2021 – 2023	**Scientific Advisor,** Logitech. Assisting interns for projects on deep-learning based speech representations
Feb. 2022 – Sep. 2022	**Research assistant,** EPFL. Writing graphical user interfaces to facilitate animal tracking for biologists
Feb. 2021 – Aug. 2021	**Engineering intern,** Logitech. Designing experiments and analysing deep learning techniques for emotion and stress recognition.

Research Publications (selected)

Full list available on Google Scholar. *: Equal contribution

Journal Articles

1. Artificial intelligence for modelling infectious disease epidemics
M. U. Kraemer, J. L.-H. Tsui, S. Y. Chang, S. Lytras, M. P. Khurana, S. Vanderslott, S. Bajaj, **N. Scheidwasser**, J. L. Curran-Sebastian, E. Semenova, *et al.*
Nature, 2025

2. Phylo2Vec: a vector representation for binary trees
M. J. Penn*, **N. Scheidwasser***, M. P. Khurana, D. A. Duchêne, C. A. Donnelly, and S. Bhatt
Systematic Biology, 2024

Conference Proceedings

1. BYOL-S: Learning Self-supervised Speech Representations by Bootstrapping
G. Elbanna, **N. Scheidwasser**, M. Kegler, P. Beckmann, K. El Hajal, and M. Cernak
HEAR: Holistic Evaluation of Audio Representations (NeurIPS 2021 Competition), 2022

2. SERAB: A multi-lingual benchmark for speech emotion recognition
N. Scheidwasser, M. Kegler, P. Beckmann, and M. Cernak
IEEE international conference on acoustics, speech and signal processing (ICASSP), 2022

Upcoming publications & preprints

1 Speech-based language phylogenies using deep learning-based language identifiers
N. Scheidwasser, H. Zhu, H. Huang, S. J. Greenhill, S. Bhatt, and D. A. Duchêne
In writing, 2025

Skills

Software development	Unit testing, CI/CD (GitHub actions), version control (Git)
Programming languages	Python (proficient), C++, Rust, Bash, Julia, R, Matlab, TeX (familiar).
Machine learning libraries	PyTorch, Jax, Tensorflow, Keras, scikit-learn
DataOps/MLOps	DVC, Great Expectations, Weights & Biases, MLFlow, FastAPI
Web development	Basic knowledge of Jekyll and Hugo
Misc.	Teaching (creator of PhD course Data visualisation and storytelling), supervision, consultation

Other interests

A Byte of Health	A biweekly newsletter exploring the latest breakthroughs in science and medicine
Volunteering	Board member of ESN Copenhagen (2023-2025), a student association supporting student exchanges in Europe Co-founder of Data Analytics Group at EPFL (2020-2022), a student association promoting data science on campus
Scrabble	Under-18 French World Scrabble Champion (2015), in the world top-100 for 5 years
Other	Sports (running, bouldering, football, skiing...), chess, cooking, guitar