Neil Scheidwasser



in linkedin.com/neil-scheidwasser
orcid.org/0000-0001-9922-0289



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

Ph.D., University of Copenhagen in Public Health and Epidemiology. Keywords: pandemic preparedness, phylogenetics, computer vision, bioinfor-

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.

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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

- 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
- 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

- 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
- 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

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 Unit testing, CI/CD (GitHub actions), version control (Git)

development

Programming Python (proficient), C++, Rust, Bash, Julia, R, Matlab, TeX (familiar).

languages

Machine learning PyTorch, Jax, Tensorflow, Keras, scikit-learn

libraries

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

Referees

Milos Cernak Principal Engineer, Technology Office, Logitech

Mikolaj Kegler Audio ML Scientist, Bose