

# CV



Luna Skytte  
Hansen

Engineering

Neuroscience

Data Science



2000 Frederiksberg



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## About me

Highly motivated and results-oriented professional with a combined background in Human-centered AI Engineering (M.Sc., DTU) and Biomedical Engineering (B.Sc., DTU). Leveraging expertise in health technology and data science, I have successfully contributed to clinical studies, medical device development, regulatory compliance, and product commercialization.

## WORK EXPERIENCE

- 2024 - Now **Data Scientist at Laerdal Copenhagen**  
Responsible for transforming data into business and product insights to continuously improve user experience.
- 2021 - 24 **Scientific Research Manager at OptoCeutics ApS**  
Team manager responsible for supervising fellow researchers, and projects. Experienced in conducting experiments, collecting and analyzing data within neuroscience and Alzheimer's Disease.
- 2019 - 21 **EEG Specialist at OptoCeutics ApS**  
Student assistant in charge of EEG research. Experience with writing and executing experimental protocols, data analysis, and statistics.
- 2020 **Student programmer. DTU Dept. of Applied Mathematics and Computer Science**  
In charge of programming cognitive paradigms. Experience with PsychoPy, experimental design, and data validation.
- 2017-20 **MR assistant. Dept. Neurology and Neurobiology Research Unit (NRU), Rigshospitalet.**  
Assistance during research scans. Experience with MRI/fMRI procedures and patient care.

## PUBLICATIONS

- 2024 **Light-Based Gamma Entrainment with Novel Invisible Spectral Flicker Stimuli**  
Hansen, Luna S. et al., Scientific Reports, Nature 2024;  
<https://www.nature.com/articles/s41598-024-75448-4>
- 2024 **Rationale and design of a double-blinded, randomized placebo-controlled trial of 40 Hz light neurostimulation therapy for depression (FELIX)**  
Sakalauskaite, Laura et al., Ann Med. 2024 May;  
<https://doi.org/10.1080/07853890.2024.2354852>
- 2023 **Re-evaluating the choice of gamma stimulation frequency for potential treatment of Alzheimer's disease: Novel invisible spectral flicker evokes gamma responses at various frequencies.**  
Henney, Mark A. et al., *Alzheimer's & Dementia*, 19. (2023)  
<https://doi.org/10.1002/alz.071897>
- 2022 **Novel Invisible Spectral Flicker Induces 40 Hz Neural Entrainment with Similar Spatial Distribution as 40 Hz Stroboscopic Light**  
Agger, Mikkel P. et al., *J. Alzheimers Dis.* 2022  
<https://doi.org/10.3233/jad-220081>
- 2020 **40 Hz invisible spectral flicker and its potential use in Alzheimer's light therapy treatment**  
Carstensen, Marcus S. et al., *Proc. SPIE 11221, Mechanisms of Photobiomodulation Therapy XV (2020)*  
<https://doi.org/10.1117/12.2544338>

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## EDUCATION

2018–2021 **M.Sc. in Human-Centered Artificial Intelligence Engineering. Technical University of Denmark (DTU)**

2014–17 **B.Sc. in Biomedical engineering. Technical University of Denmark (DTU) and University of Copenhagen (UCPH)**

## PROJECT WORK

### Master Thesis (2020)

**Title** Analysis of a Large-scale Smartphone dataset: Behavioral Factors Affecting Heart-Rate  
**Supervisors** Prof. Sune Lehmann and Assistant Prof. Laura Alessandretti  
**Institute** Department of Applied Mathematics and Computer Science, Technical University of Denmark.  
**Description** *The project focused on analysing and exploring the trends and correlation in a smartphone-based large-scale dataset including Heart Rate, sleep, motion, and app usage.*

### Bachelor Thesis (2017)

**Title:** Signal processing and analysis for interview speech data.  
**Supervisors:** Prof. Lars K. Hansen, Post.Doc. Nikolaj Bak & PhD. stud. Martin Axelsen.  
**Institute:** Psychiatric Center Glostrup, & Technical University of Denmark.  
**Description:** *The project explored the processing and analysis of speech data from video recordings of schizophrenic patients to extract relevant audio features.*

## TECHNICAL TOOLBOX

**Experienced** Python, Matlab, Rstudio, MS Office,  $\text{\LaTeX}$ , Android, Google, IOS, git, PsychoPy, Jira, Figma, Meta Business, Greenlight Guru, SQL (Postgresql), PySpark, Spark, Jupyter Notebook, SciPy, Pandas, Seaborn, MNE, NetworkX, Ime4, Unix, Databricks, Power Bi.

**Knowledge** Java, Java Android, JavaScript, Flutter, Comsol, Simulink, Google Analytics, TensorFlow, PyTorch, Amazon Web Service, Adobe (Mainly XD), WordPress, Looker Studio (Google).

## LANGUAGE

**Danish** Native  
**English** Fluent in writing and speech

## OTHER

2023-now **Member of homeowners' association**  
Insight in to property management, budgeting, communication and collaboration.

2016–2021 **Chairman of dormitory and member of the council**  
Experience with communication, organization, administration, leadership and conflict management.

2019 **Tohoku Univesity Engineering Summer Program (Japan)**  
Experience studying abroad and knowledge on robotics.