# Frank te Nijenhuis

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Frank-Te-Nijenhuis

## Experience

### Vocational

2025–now **Education Developer, SUSA**, *Erasmus Medical Center*.
For the *SUSA Project*, I assist in course design for
- The MSc degree Technical Medicine.
- The BSc degree Clinical Technology.
- The technical education track of the BSc degree Medicine.

2023–now **PhD candidate, ICAI Stroke Lab**, *Erasmus Medical Center*.
- Working on the implementation of state-of-the-art computer vision methods in the context of (neuro-)interventional radiology at the *ICAI Stroke Lab*. The goal of this project is to assist the neuro-interventional radiologist in real-time during mechanical thrombectomy, the main treatment of acute ischemic stroke.

2022–2023 **Junior Doctor, Internal Medicine**, *HagaZiekenhuis*.
- Performed ward duties on the internal medicine wards, as well as in the emergency department.
- Worked weekend and night shifts for the internal medicine, haematology, gastro-enterology and rheumatology departments.

### Teaching

2024–now **Junior Teacher, Advanced Image Processing**, *(MSc Technical Medicine) Erasmus MC*.
- Giving a lecture on "Deep Learning for Medical Image Segmentation".
- Answering questions during tutorial sessions.

2024–now **Junior Teacher, Machine Learning**, *(MSc Technical Medicine) Erasmus MC*.
- Giving a lecture on "Deep Learning".
- Giving a lecture on "Convolutional Neural Networks".
- Answering questions during tutorial sessions.

2024–now **Junior Teacher, Technical Education Track**, *(BSc Medicine) Erasmus MC*.
Providing two tutorial sessions to medical students:
- "Evaluation of binary classifiers".
- "Responsible use of Large Language Models".

2024–2025 **Junior Teacher, Python Programming**, *(MSc Technical Medicine) Erasmus MC*.
- Gave tutorial sessions about Python programming.
- Administered the final assignment.

2017–2018 **Teaching Assistant, Languages and Machines**, *(BSc Computing Science) University of Groningen*.

- Reviewed homework assignments about automata theory, computability and formal grammars.
- Answered questions during tutorial sessions.

2017–2018 **Teaching Assistant, Software Engineering**, *(BSc Computing Science) University of Groningen*.

- Supervised a group of students during a software engineering project. The students developed a medical guideline calculator, to be used by physicians and guideline developers.

2015–2017 **Teaching Assistant, Discrete Structures**, *(BSc Computing Science) University of Groningen*.

- Reviewed homework assignments about basic graph theory, mathematical proofs and set theory.
- Answered questions during tutorial sessions.

## Education

2023–now **PhD Courses**, *Various Institutions*.

- Clinical Epidemiology (3 EC).
- Study Design (4 EC).
- Bayesian Statistics (0.6 EC).
- Causal Inference (1.4 EC).
- GPU Programming (0.6 EC).
- CT Angiography Interpretation (0.3 EC).
- OxML summer school, Representation Learning & Generative AI (1.2 EC).

2021–2022 **MSc Computer Science (GPA: 8.0/10)**, *Delft University of Technology*.

Artificial Intelligence Technology track

*Specializations*:

- Algorithmics.
- Pattern Recognition.
- Computer Graphics & Visualization.

Thesis: *Outcome prediction for endovascular therapy, multimodal deep learning for acute ischemic events in the arteria cerebri media*, grade 8.5/10.

2018–2021 **MSc Medicine (GPA:7.6/10)**, *University of Groningen*.

Final internships in Radiology (14 weeks) and Cardiology (6 weeks).

Thesis: *Radiomics and COVID-19, predicting CO-RADS score on non-contrast chest CT using multiparametric radiomics, deep learning based noise reduction and machine learning classifiers*, grade 9/10.

2014–2017 **BSc Computing Science (GPA: 7.5/10)**, *University of Groningen*.

*Extracurricular coursework*:

- Complex Analysis (BSc Mathematics, 5 EC).
- Student Colloquium (MSc Computing Science, 5 EC):
  *K. Al-Saudi &* ***F.G. te Nijenhuis****, Automatic Fracture Detection in CT-scans of the Cervical Spine*, awarded best "2 minute madness" presentation.

Thesis: *Ceteris Paribus, a physiological modeling framework*.

2013–2016 **BSc Medicine (GPA: 7.3/10)**, *University of Groningen*.

*Extracurricular coursework*:

- Scientific Integrity (2 EC).
- Petrus Camper Project (5 EC):
  *Self-enhancement & Transhumanism*, Atelier & Summer School (Munich).
- Sociology of Mental Health (5 EC).
- Academic Writing (2 EC).
- Debating (2 EC).
- Social Complexity (5 EC).
- Junior Scientific Masterclass Pilot Project (6 EC):
  *Testing the Silent Sister hypothesis* (ERIBA, Genetic Instability Ageing Center)
  Supervision: dr. D. Spierings and prof. dr. P. Lansdorp.

## Academic Service

2023–now **Student Supervision**, *Erasmus MC*.

- Supervised 6 MSc thesis projects, of which 2 are currently ongoing.
- Supervised 2 MSc internship projects.
- Supervised 10 BSc students in multiple projects.

2023–now **GPU Cluster System Administrator**, *Erasmus MC*.

- Administered and optimized a high-performance GPU cluster, ensuring steady operation for AI workloads and medical image computing.
- Monitored system performance, applied updates, and resolved user issues.

2025 **AI Symposium organizer**, *Erasmus MC*.

- Was part of a committee that organized a symposium about AI in the hospital, focusing on research applications and implementation of AI. Approximately 50 people attended.

2023–2024 **PhD Representative**, *Biomedical Imaging Group Rotterdam, Erasmus MC*.

- Represented PhD students to the departmental board.