

Contact

Brussels
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www.linkedin.com/in/nilakashdas
(LinkedIn)
scholar.google.com/citations
(Portfolio)

Top Skills

Data Science
Clinical Research
Deep Learning

Languages

French (Elementary)
English (Full Professional)
Hindi (Full Professional)

Certifications

Google cloud platform big data and
machine learning fundamentals
Machine Learning
Deep Learning Specialization

Honors-Awards

ABS scholarship
Honourable Mention in Tennis
International Informatics Olympiad
GSK Clinical Science Award 2017
FWO Strategic basic fellowship

Publications

Area under the forced expiratory
flow-volume loop in spirometry
indicates severe hyperinflation in
COPD patients

Spirometric indices of early airflow
impairment in individuals at risk
of developing COPD: Spirometry
beyond FEV1/FVC

Estimating Airway Resistance from
Forced Expiration in Spirometry

Nilakash Das

Clinical data scientist | AI in medicine | Passionate about AI in
improving quality of healthcare | FWO PhD fellow
Brussels Metropolitan Area

Summary

AI in medicine is more than developing jargon-filled deep learning networks with 90% accuracy. It requires a thorough understanding of clinical challenges, clear communication with medical experts, and a real commitment to improve patients' lives.

I am a scientist, who deeply cares about solving real clinical problems using data science. My research lies at the intersection of signals processing, statistics, machine learning, and respiratory medicine. Working at a university hospital for 4 years has given me a window to the real problems that patients face. It has given me an opportunity to interact with different healthcare workers like technicians, nurses, medical residents and specialists. This experience has allowed me to truly recognize the clinical impact of my work.

In my PhD, I had a phenomenal time collaborating with incredible researchers around the world, which has now led to more than 15 scientific publications. I am also fortunate to have invented two patented AI technologies for respiratory diagnostics and data quality assurance.

I firmly believe that research should not just be buried within the annals of a journal, but it should also be applicable in the real world. Therefore, I collaborate with ArtiQ (artiq.eu), our laboratory spin-off, where I am extensively involved in product development of two medical AI software for primary and secondary care. In addition, I also design and conduct clinical studies to demonstrate the efficacy of our software.

No single human has ever changed the world, and that is also true for AI in medicine. I love to celebrate the work of other scientists whose contributions have the potential to improve quality of

Artificial intelligence outperforms pulmonologists in the interpretation of pulmonary function tests

Deep learning algorithm helps to standardise ATS/ERS spirometric acceptability and usability criteria

Patents

Spirometry evaluation method

Method and apparatus for determining airflow limitation

healthcare. But sometimes, I also highlight the need to maintain cautious optimism in AI amidst all the media hype.

Experience

Laboratory of Respiratory Diseases and Thoracic Surgery

Clinical data scientist

January 2017 - Present (3 years 8 months)

Belgium

My experience:

1. Research of AI models for clinical outcomes

- 2 patents

- More than 15 publications in the field of respiratory medicine

2. Clinical development of AI models

- Successfully conducted and published 1 trial comparing AI and 120 pulmonologists

- 2 ongoing trials

3. Translation of research to product (in collaboration with our spin-off company Artiq.eu)

- Led product development of a deep learning based clinical quality assurance software called Artiq.QC

- Supported updates of new product features and updates at Artiq

4. Academic writing and presentation

My research interests:

1. Medical diagnostics

2. Biomarker discovery

3. Medical data quality assurance

4. Personalized medicine

Indian Register of Shipping

Scientific software developer

July 2011 - June 2014 (3 years)

Powai

Worked in the software development group of R&D division to develop in-house analytical tools and applications

Education

KU Leuven

Phd candidate, AI in respiratory medicine · (2017 - 2020)

Delft University of Technology

Master of Science (MSc) · (2014 - 2016)

Indian Institute of Technology, Kharagpur

Bachelor of Technology (B.Tech. Hons) · (2007 - 2011)