Curriculum Vitae

Dimitrios Doudesis, PhD

Room SU.305, Chancellor's building,

49 Little France Crescent, Edinburgh, EH16 4SB

Dimitrios.Doudesis@ed.ac.uk, d.doudesis@gmail.com

QUALIFICATIONS

- **PhD, Data Science/Precision Medicine,** The University of Edinburgh, 2018-2022
  Thesis: *Improving diagnosis in acute cardiac care using statistical machine learning.*
- **MSc, Medical Statistics**, The University of Southampton, 2017-2018
  Dissertation: *Feature selection algorithms for the development of parsimonious statistical learning models.* (Distinction)
- **BSc, Statistics,** The Athens University of Economics and Business, 2013-2017
  Grade 7.8/10. (Class rank: 2 of 118).

EMPLOYMENT HISTORY

Postdoctoral Research Fellow, The University of Edinburgh, March 2022 – Present

Research Fellow (part-time), The University of Edinburgh, October 2021 – February 2022

Teaching Assistant/Tutor, The University of Edinburgh, September 2019 – Present

- Data Science in Medicine
- Machine Learning in Python
- Statistical Computing
- Introduction to Statistics
- Advanced Epidemiology
- Statistical Modelling
- Biomedical Data Science
- Statistics (Year 2)
- Health Data Science

Research Assistant, The University of Edinburgh, April 2020 – September 2020

- *Student perspectives on Learning and Teaching Data Science in the MBChB programme*

Data Analyst, PREDICTA S.A (former SPSS BI GREECE S.A), March 2017 – September 2017.

- *International Financial Reporting Standards (IFRS) 9* for a systemic bank in Greece.

PROFESSIONAL AFFILIATIONS

- Fellow of Royal Statistical Society (FRSS), 2021 – Present
- Associate Fellow of Higher Education (AFHE), 2021 – Present
- Member of Association of Data Scientists (MADaSci), 2021 – Present

ACADEMIC HONOURS AND AWARDS

- Innovation Award - Sponsored by Edinburgh Innovations & iTPA Translational Community, BHF/Centre for Cardiovascular Science Symposium, 2022
- Young Investigator Award - Clinical Cardiology, Runner-up, European Society of Cardiology Conference, 2020

FUNDING / AWARDS

GRANTS

- British Heart Foundation Translational Award (TA/F/22/210039). Artificial Intelligence to Guide the Diagnosis of Acute Heart Failure using the CoDE-HF Algorithm. £265,622 (Co-applicant)
- Accelerated Access Collaborative in partnership with NHSX and the National Institute for Health Research Artificial Intelligence in Health and Care Award (AI_AWARD02322). Machine learning to improve the diagnosis of acute myocardial infarction. £134,589 (Co-applicant)
- British Heart Foundation Centre for Research Excellence. AI guided diagnosis of acute heart failure using the CoDE-HF algorithm. £24,741 (Co-applicant)
- Medical Research Council Confidence in Concept award (MRC/CIC8/79). AI guided diagnosis of acute heart failure using the CoDE-HF algorithm. £143,800 (Co-applicant)
- Medical Research Council Confidence in Concept Translational Bursary. £1,613 (PI)

SCHOLARSHIPS

- Medical Research Council Scholarship for PhD in Data Science/Precision Medicine, The University of Edinburgh (3.5 years - fees, stipend and research costs), £85,960
- National Institute for Health Research Scholarship for MSc in Medical Statistics, The University of Southampton (1 year - fees and stipend), £23,553

SKILLS / CERTIFICATIONS

PROGRAMMING LANGUAGES

- R • R Shiny (App development) • Python • SQL • SPSS Modeler • SPSS Statistics.

LANGUAGES

- English • Greek

Online Certifications

- Building Dashboards with shinydashboard
- Building Dashboards with flexdashboard
- Building Web Applications with Shiny in R
- Deep Learning Fundamentals with Keras
- Python for Data Science
- Statistics and Probability in Data Science using Python
- Postdocs to Innovators (p2i) programme
- Managing Innovative Technology
- Machine Learning for Data Science
- Microsoft: Programming with R for Data Science
- Microsoft: Introduction to R for Data Science
- Microsoft: Querying with Transact SQL
- DelftX: Data Analysis: Take it to the MAX
- HarvardX: Statistics and R
- Digital Innovation in Translational and Clinical Research
- Digital Health Business and Commercialization Strategies

PUBLICATIONS

Doudesis, D.*, Lee, K.K.*, Anwar, M.*, Astengo, A., Chenevier-Gobeaux, C., Claessens Y.E., … Mills NL. (2022) Development and validation of a decision-support tool for the diagnosis of acute heart failure. *BMJ 377 (2022)*

Doudesis, D.*, Lee, K.K.*, Yang, J., Wereski, R., Shah, A.SV., Tsanas, A., … Mills NL. (2022). Validation of the myocardial-ischemic-injury-index (MI^3) machine learning algorithm to guide the diagnosis of myocardial infarction in a heterogeneous population. *The Lancet Digital Health 4.5 (2022): e300-e308*

Doudesis, D., Manataki, A. (2022). Data science in undergraduate medicine: Course overview and student perspectives. *Int J Med Inform*, 159, 104668. doi:10.1016/j.ijmedinf.2021.104668

Lee, K. K., **Doudesis, D.**, Ross, D. A., Bularga, A., MacKintosh, C. L., Koch, O., . . . Mills, N.L. (2021). Diagnostic performance of the combined nasal and throat swab in patients admitted to hospital with suspected COVID-19. *BMC Infect Dis*, 21(1), 318. doi:10.1186/s12879-021-05976

Lowry, M. T., **Doudesis, D.**, Wereski, R., Kimenai, D. M., Tuck, C., Ferry, A. V., ... Mills, N.L. (2022). Influence of Age on the Diagnosis of Myocardial Infarction. *Circulation*, 10-1161.

Bularga, A., Meah, M. N., **Doudesis, D.,** Shah, A. S. V., Mills, N. L., Newby, D. E., & Lee, K. K. (2021). Duration of dual antiplatelet therapy and stability of coronary heart disease: a 60 000-patient meta-analysis of randomised controlled trials. *Open Heart*, 8(2). doi:10.1136/openhrt-2021-001707

Lee, K. K., Bularga, A., O'Brien, R., Ferry, A. V., **Doudesis, D.**, Fujisawa, T., . . . Mills, N. L. (2021). Troponin-Guided Coronary Computed Tomographic Angiography After Exclusion of Myocardial Infarction. *J Am Coll Cardiol*, 78(14), 1407-1417. doi:10.1016/j.jacc.2021.07.055

Wereski, R., Kimenai, D. M., Taggart, C., **Doudesis, D.**, Lee, K. K., Lowry, M. T. H., . . . Mills, N. L. (2021). Cardiac Troponin Thresholds and Kinetics to Differentiate Myocardial Injury and Myocardial Infarction. *Circulation*, 144(7), 528-538. doi:10.1161/CIRCULATIONAHA.121.054302

Tibble, H., Chan, A., Mitchell, E. A., Horne, E., **Doudesis, D.**, Horne, R., . . . Tsanas, A. (2020). A data-driven typology of asthma medication adherence using cluster analysis. *Sci Rep*, 10(1), 14999. doi:10.1038/s41598-020-72060-0.

Lee, K. K., Bing, R., Kiang, J., Bashir, S., Spath, N., Stelzle, D., **Doudesis, D.,** . . . Shah, A. S. V. (2020). Adverse health effects associated with household air pollution: a systematic review, meta-analysis, and burden estimation study. *Lancet Glob Health*, 8(11), e1427-e1434. doi:10.1016/S2214-109X(20)30343-0.

* Denotes joint-authors