Curriculum Vitae

Dimitrios Doudesis, PhD

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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

& Course Lead, Health Data Science, The University of Edinburgh, September 2022 – Present

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

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

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

Teaching Assistant/Tutor, The University of Edinburgh, September 2019 – September 2021

• 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

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 and Greek

ONLINE CERTIFICATIONS

- Deep Learning Fundamentals with Keras
- Building Dashboards with shinydashboard
- Building Dashboards with flexdashboard
- Building Web Applications with Shiny in R
- Python for Data Science
- Statistics and Probability in Data Science using Python
- Postdocs to Innovators (p2i) programme
- Managing Innovative Technology
- Digital Innovation in Translational and Clinical Research
- Digital Health Business and Commercialization Strategies
- 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

PUBLICATIONS

1. **Doudesis D***, Lee KK*, Anwar M*, Astengo F, Chenevier-Gobeaux C, Claessens Y-E, et al. Development and validation of a decision support tool for the diagnosis of acute heart failure: systematic review, meta-analysis, and modelling study. *BMJ* 2022;377:e068424.

2. **Doudesis D***, Lee KK*, Yang J, Wereski R, Shah AS, Tsanas A, et al. Validation of the myocardial-ischaemic-injury-index machine learning algorithm to guide the diagnosis of myocardial infarction in a heterogenous population: a prespecified exploratory analysis. *The Lancet Digital Health*. 2022;4(5):e300-e8.

3. **Doudesis D**, Manataki A. Data science in undergraduate medicine: Course overview and student perspectives. *International Journal of Medical Informatics*. 2022;159:104668.

4. Lowry MTH, **Doudesis D**, Wereski R, Kimenai DM, Tuck C, Ferry AV, et al. Influence of age on the diagnosis of myocardial infarction. *Circulation*. 2022;146(15):1135-48.

5. Lee KK, **Doudesis D**, Ross DA, Bularga A, MacKintosh CL, Koch O, et al. Diagnostic performance of the combined nasal and throat swab in patients admitted to hospital with suspected COVID-19. *BMC infectious diseases*. 2021;21(1):1-11.

6. Bularga A, Meah MN, **Doudesis D**, Shah AS, Mills NL, Newby DE, et al. Duration of dual antiplatelet therapy and stability of coronary heart disease: a 60 000-patient meta-analysis of randomised controlled trials. *Open heart*. 2021;8(2):e001707.

7. Wereski R, Kimenai DM, Taggart C, **Doudesis D**, Lee KK, Lowry MT, et al. Cardiac troponin thresholds and kinetics to differentiate myocardial injury and myocardial infarction. *Circulation*. 2021;144(7):528-38.

8. Lee KK, Bularga A, O'Brien R, Ferry AV, **Doudesis D**, Fujisawa T, et al. Troponin-guided coronary computed tomographic angiography after exclusion of myocardial infarction. *Journal of the American College of Cardiology*. 2021;78(14):1407-17.

9. Tibble H, Chan A, Mitchell EA, Horne E, **Doudesis D**, Horne R, et al. A data-driven typology of asthma medication adherence using cluster analysis. *Scientific reports*. 2020;10(1):1-8.

10. Lee KK, Bing R, Kiang J, Bashir S, Spath N, **Doudesis D**, et al. Adverse health effects associated with household air pollution: a systematic review, meta-analysis, and burden estimation study. *The Lancet Global Health*. 2020;8(11):e1427-e34.

11. Valavani E, **Doudesis D**, Kourtesis I, Chin RF, Macintyre DJ, Fletcher-Watson S, et al. Data-driven insights towards risk assessment of postpartum depression. *BIOSIGNALS*; 2020 (pp. 382-389).

* Contributed equally