

Neil Sardesai

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Education

University of Cambridge

Bachelor of Arts – BA (Hons), Medical Sciences & Engineering 2021 – 2024

- Grade: Medical Sciences (1st class), Engineering (high 2.1, 73%)

Medical Degree (Bachelor of Medicine, Bachelor of Surgery) – MB, BChir 2021 – 2027

- Rotations in Cardio-Respiratory Medicine, Medicine for the Elderly, Paediatrics, Emergency Care
Neurosciences/Neurology, Psychiatry, General Practice, Obstetrics & Gynaecology, Rheumatology, Infectious
Diseases, Oncology, Surgery & Peri-Operative care, Medicine, Orthopaedics

The Perse School

2014 - 2021

A-levels (Maths, Further Maths, Biology, Chemistry)

All A*/equivalent

GCSEs (13 subjects)

All A*/9s/equivalent

Work Experience

HealthTech Consulting | Freelance/Self-Employed

January 2025 – Present

- Project 1: Confidential research for a US-based primary care AI co-pilot, leading team of medical students
- Project 2: Developing a patient information leaflet and systematic literature review for a UK health charity, in partnership with a UK consulting firm, by leading a team of medical students, consultants and doctors.

Supervisor (Physiology and Medical Statistics) | University of Cambridge

October 2024 – Present

- Supervisor for 30+ students at the University for students at Emmanuel College (Physiology) and for the Faculty of Biology (FEBP), responsible for organising and delivering tailored small-group teaching, setting mock exams.

Analyst Intern (MedTech and Market Access) | Costello Medical Consulting

July 2024 – Sept 2024

- Researched and authored deliverables for 10+ projects, leveraging a medical and engineering background, incorporating client feedback and presenting findings during external calls
- Conducted literature reviews, PRISMA flowchart creation, data extraction, and quality control for reports and large-scale documents (e.g., 160+ pages)
- Supported economic modelling and cost-effectiveness analyses, health policy, and medical technology evaluation
- Led a diagnostic landscape project, managing research, deliverables, and client communication.
- Developed expertise in systematic reviews, health policy, and medical technology evaluation.

Medical Artificial Intelligence Research Fellow | Harvard University

June 2023 – August 2023

- Selected for competitive scholarship, awarded \$10,000 for fellowship at the Department of Biomedical Informatics.
- Wrote Python and R programs to conduct big data analysis of a CDC dataset of 40,000 patients.
- Developed and tested machine learning models designed to predict GFR from blood and urine biomarkers.
- Generated novel insights and delivered seminar to 50+ peers explaining research from first principles.

Clinical Data Science Intern | Cambridge Centre for AI in Medicine

June 2023 – January 2024

- As first-author, conducted Health Research Authority approved study at Cambridge University Hospitals NHS trust.
- Wrote Python programs to analyse and draw conclusions about the PaCO₂-ETCO₂ gradient in major trauma patients from >750,000 datapoints of 1750 patients, extracted from the hospital electronic health record.
- Collaborated with a multi-disciplinary team of doctors and academics, managed deadlines and coordinated the project.
- Wrote results as a manuscript, which has been published, and received 'Highly Commended' prize for quality of research when presenting findings to >100 doctors at an East of England competition for non-consultant doctors.

Innovation Programme | Cambridge MedTech Foundation

October 2022 – April 2023

- Selected as technical lead of project, worked in team of five to ideate and pitch a novel medical device that automatically measures urine flow rate through indwelling catheters, and integrates with the electronic health record and a mobile app.
- Invited to serve on the 2023/24 MedTech Foundation committee as MedX officer.

Summer Intern | Human Anatomy Centre

July 2022

- Selected for Anatomy Dissection Internship 2022, Department of Physiology, Development and Neuroscience.
- Created prosections for medical training and learnt surgical skills.

Medical Software Tester | Cambridge Digital Health

August 2019 - March 2021

- Tested proprietary software, including mobile app for young patients with otitis media and management software for the NHS response to COVID-19. Suggested changes to user interface and functionality.

Summer Intern | Heartfelt Technologies Ltd

July 2019

- Assisted with image labelling for automatic AI-supported, telemonitoring solution for heart failure patients.

Leadership

President | Cambridge MedTech Society

June 2024 – Present

- Elected leader of society, responsible for organising 4 month innovation programme, annual networking conference, workshops and speaker events.
- Society membership 3x under leadership, with dramatically increased engagement and sponsorship.

President | Cambridge AI in Medicine Society

June 2024 – Present

- Elected leader of society, responsible for organising 10+ events, workshops, and socials.
- Sponsorship increased 5x, with increased engagement and membership.

President | Emmanuel Medical and Veterinary Society

Sept 2023 – Sept 2024

- Elected leader of 120+ member society, chaired 12-person committee, and took responsibility for direction and events.
- Invited and publicly interviewed leaders in academia, medicine, and industry to create engaging sessions for students.

Volunteering

Health Data Research Panel Member | National Institute for Health and Care Research

September 2023 - Present

- Serving on patient panel to examine researcher applications for use of clinical data from the ERIN database.
- Critically appraised 40+ applications for scientific merit, potential benefits and risks to patients.

Co-Founder/Lead | Emmanuel Widening Access Programme for Medicine

March 2024 –Present

- Received £5000+ in funding to run a free widening access programme for students from widening participation backgrounds (including socioeconomic and BAME backgrounds), to increase diversity and access into Medicine.
- Ran team of mentors, delivered webinars, mock interviews and personal statement marking.

Inpatient Unit Volunteer | Arthur Rank Hospice Charity

October 2019 - June 2023

- Worked with medical team to care for palliative care patients. Trained and mentored new/returning volunteers.

Awards

- **International Biology Olympiad** (Silver Medal), **UK Biology Olympiad** (Winner)
- Emmanuel College: Prettejohn Senior Scholarship; Rowley Mainhood Award; Prize for 1st Class performance
- David Oliveira Award 3rd Place – Royal Society of Medicine
- European Society of Human Genetics Essay Competition (2nd prize)
- Harold Youngman Competition, Highly Commended

Publications

Peer Reviewed Journal Articles:

1. (First Author) Agreement between PaCO₂ and ETCO₂ in adult patients admitted with serious TBI. *PLOS ONE* 2024.
2. (First Author) Utilising Generative Conversational AI to Create Simulated Patient Encounters. *PMJ* 2024.
3. Ultrasonographic Visualisation of Anatomical Variations of the Supraclavicular Nerves. *Clinical Anatomy* 2023.
4. Ultrasonographic Visualisation of Anatomical Variation of the MCNF.... *Reg Anesth Pain Med* 2021.
5. (First Author) How should funding for research into post-ischemic stroke treatment be prioritized. *YSJ* 2020.

Oral Presentations

1. (First & Presenting Author) How to build your own 3D virtual patient using a 'no-code' generative conversational AI platform [Poster Presentation] *International Association for Health Professions Education*, 2024.
2. (First & Presenting Author) Evaluating supervised machine learning models against existing clinical equations for estimated glomerular filtration rate in patients with chronic kidney disease. *Royal Society of Medicine*, 2023.
3. (First & Presenting Author) Racial inequalities in kidney function testing: what can we do? *Harvard PRISE*, 2023.
4. Ultrasound investigation of anatomical variations in the supraclavicular nerve. *British Association of Clinical Anatomists, WSM* 2022.
5. (First & Presenting Author) The PaCO₂-ETCO₂ gradient in intubated major trauma patients: a big data approach. *East Anglian Association of Anaesthetists, AGM* 2022