

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

Clinical AI Researcher | Harvard University

Present

- Researching clinical AI under Prof. Arjun Manrai, Department of Biomedical Informatics.

HealthTech Consulting | Freelance/Self-Employed

January 2025 – Present

- Led multi-site research across the UK and US for Lotus Health on what future doctors want from public-facing primary care AI tools.
- Led a team of medical students, consultants and doctors on a scoping review and patient and carer information leaflet for Arthur Rank Hospice Charity, in partnership with a UK consulting firm. Presented nationally and awarded Best Oral Presentation (1st place).
- Ambassador for Biomic Health.

Supervisor and Teaching | University of Cambridge

October 2024 – Present

- Supervisor in Physiology and Medical Statistics for 30+ students at Emmanuel College and the Faculty of Biology: organise and deliver tailored small-group teaching and set mock exams. Part II Supervisor and Associate Clinical Supervisor, School of Clinical Medicine.
- Leader of the University of Cambridge Cardiology Society Teaching Series. Private tutor for 5+ years. Associate Fellow of the Higher Education Academy (AFHEA).

Analyst (MedTech, Market Access/Pharmaceuticals and Health Economics) | Costello Medical

July 2024 – Sept 2024

- Researched and authored deliverables for 10+ projects, incorporating client feedback and presenting findings during external calls.
- Conducted literature reviews, PRISMA flowcharts, data extraction and quality control for large reports (e.g. 160+ pages); supported economic modelling, cost-effectiveness analyses, health policy and medical technology evaluation.
- Led a diagnostic landscape project, managing research, deliverables and client communication.

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 for big data analysis of a CDC dataset of 40,000 patients; developed and tested machine learning models 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 a Health Research Authority approved study at Cambridge University Hospitals NHS trust: Python analysis of the PaCO₂-ETCO₂ gradient in major trauma patients from >750,000 datapoints of 1750 patients in the electronic health record.
- Collaborated with a multi-disciplinary team of doctors and academics; published the manuscript and received 'Highly Commended' for research quality when presenting to >100 doctors.

Innovation Programme | Cambridge MedTech Foundation

October 2022 – April 2023

- Technical lead in a team of five pitching 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 committee as MedX officer.

Summer Intern | Human Anatomy Centre

July 2022

- Selected for the Anatomy Dissection Internship (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 a mobile app for young patients with otitis media and management software for the NHS response to COVID-19; suggested interface and functionality changes.

Summer Intern | Heartfelt Technologies Ltd

July 2019

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

Projects

NHS-Onboard | OpenAI × Anima Health Hackathon

3rd place, £2,500

- Led a student team to build, in eight hours, an AI-assisted multilingual platform that collates and translates records for people new to the NHS and uses a voice agent to fill gaps. Placed 3rd of 60 selected builders (1,200+ applied) and highest-placed all-student team.

Foundation Atlas

Python, JavaScript, Firebase

- Built a free tool for UK Foundation Programme applicants: interactive map of schools and groups, job-ranking wizard, and Monte Carlo simulations of the probability of matching to each school.

Fee Compass

Python, JavaScript, Firebase

- Built a fee-lookup platform for UK private practice that normalises seven insurers' fee schedules into one searchable database, with a multiple-code calculator.

Leadership

President | Health Futures

- Co-founded and lead the UK's largest student-run AI for Health conference: inaugural event (March 2026) with 200+ attendees from ~20 universities, 18 speakers and 6 workshops; led a founding committee of eight.

President | Cambridge MedTech Society

June 2024 – Present

- Elected leader; organise a 4-month innovation programme, annual networking conference, workshops and speaker events. Membership 3x under leadership.

President | Cambridge AI in Medicine Society

June 2024 – Present

- Elected leader; organise 10+ events, workshops and socials. Sponsorship increased 5x, with increased engagement and membership.

President | University of Cambridge Cardiology Society

President | Emmanuel Medical and Veterinary Society

Sept 2023 – Sept 2024

- Elected leader of a 120+ member society, chaired a 12-person committee, and publicly interviewed leaders in academia, medicine and industry.

Volunteering

Patient Panel Member (ERIN health data research panel) | National Institute for Health and Care Research

Sept 2023 – Present

- Critically appraised 40+ researcher applications to use clinical data, assessing scientific merit and benefits and risks to patients.

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

March 2024 – Present

- Received £5000+ in funding to run a free mentoring programme for state-school applicants to Medicine (50+ applications in year one); ran the mentor team and delivered webinars, mock interviews and personal statement marking.

Inpatient Unit Volunteer | Arthur Rank Hospice Charity

October 2019 – June 2023

- Worked with the medical team to care for palliative care patients; trained and mentored new volunteers.

Awards

- **Best Oral Presentation (1st place)**, National APMJ Conference; **3rd place and £2,500**, OpenAI × Anima Health hackathon
- **International Biology Olympiad** (Silver Medal), **UK Biology Olympiad** (Winner)
- Emmanuel College: Prettejohn Senior Scholarship; Rowley Mainhood Award; Prize for 1st Class performance. Dean's Prize; School of Clinical Medicine Paediatrics Prize
- 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. (Presenting Author) Understanding total pain: a scoping review and co-design of a patient and carer information leaflet. *National APMJ Conference, 2026* (Best Oral Presentation).
2. (First & Presenting Author) How to build your own 3D virtual patient using a 'no-code' generative conversational AI platform [Poster]. *International Association for Health Professions Education, 2024*.
3. (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*.
4. (First & Presenting Author) Racial inequalities in kidney function testing: what can we do? *Harvard PRISE, 2023*.
5. Ultrasound investigation of anatomical variations in the supraclavicular nerve. *British Association of Clinical Anatomists, WSM 2022*.
6. (First & Presenting Author) The PaCO₂-ETCO₂ gradient in intubated major trauma patients: a big data approach. *East Anglian Association of Anaesthetists, AGM 2022*.