

Anthony Li

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EDUCATION	M.D. Doctor of Medicine , <i>Duke NUS Medical School</i> Aug 2015 – Jun 2019 <ul style="list-style-type: none">Graduated with Honours in clinical research (Top 3 medical students in clinical research).
	B.Eng. Electrical Engineering , <i>National University of Singapore</i> Aug 2009 – Jun 2013 <ul style="list-style-type: none">Graduated First Class Honours (GPA: 4.5/5) and Dean's List (Top 5% of engineering cohort).
MEDICAL EXPERIENCE	National Preventive Medicine Resident , <i>Ministry of Health Holdings</i> Jul 2022 – Present <i>A. National University Health System, Insight and Systems</i> Jul 2023 – Present <ul style="list-style-type: none">Developed AI models for Singapore's western population (n=1.1 million) diagnosing and predicting adverse outcomes for chronic diseases (e.g. Diabetes Mellitus, Hypertension, Dyslipidemia)Led the exploration of new preventive medicine screening tools leveraging Generative AI. Findings presented as poster at Singapore's AI health summit 2023. [Poster Link]Selected as a Global Future Fellow to work on ASEAN's healthcare AI initiatives. [Fellowship Link]Worked with Amili to leverage microbiome data and AI to predict chronic diseases.
	<i>B. Ministry of Health, Health Regulation Group</i> Jul 2022 – Present <ul style="list-style-type: none">Drafted and amended legislation for: (1) Healthcare Financing for the Healthcare Services Act (HCSA) and, (2) Health data sharing and protection for the Health Information Bill.Worked on healthcare AI regulatory policy and the set up of the national healthcare AI Steering Committee to promote the safe and effective use of healthcare AI in the public healthcare sector.Awarded PS (Health) Team Award for outstanding policy work on HCSA amendment.
	House Officer and Medical Officer , <i>Ministry of Health Holdings</i> Jul 2019 – Jun 2022 <i>A. Tan Tock Seng Hospital (TTSH), Clinical Epidemiology</i> Jan 2021 – Jun 2022 <ul style="list-style-type: none">Conducted hospital nosocomial outbreak investigations and coordinated communicable disease control response for TTSH's 1700 patients and 8000 staff, during the COVID-19 pandemic.Published x6 clinical research papers (x2 first authors) on COVID-19, COPD and healthcare AI.Awarded x2 Singapore Health & Biomedical Congress Young Investigator Award in 2021 & 2022 for outstanding clinical research in using AI to predict adverse outcomes for COPD patients.
	<i>B. National Centre of Infectious Diseases (NCID)</i> Jul 2020 – Dec 2020 <ul style="list-style-type: none">Served in NCID's Communicable Diseases Control outbreak wards (330 beds) during the COVID-19 pandemic to provide medical treatment for patients with complex infectious diseases.Worked in high risk isolation wards (35 beds) in Sengkang General Hospital's infectious diseases services to provide medical treatment to seriously ill suspect and confirmed COVID-19 patients.Awarded COVID-19 Resilience medal for contributions to Singapore's fight against COVID-19.
	Senior Officer , <i>A*STAR, Science and Engineering Research Council</i> Aug 2013 – Sep 2014 <ul style="list-style-type: none">Technology planning and research management for multi million dollar projects: Urban Systems Initiatives, Satellite Initiatives and Infocomm Public Service Funding Research Projects.Awarded MTI / A*STAR borderless awards for outstanding contributions to cross-agency initiatives.
SELECTED COMMUNITY SERVICE EXPERIENCE	Volunteer Doctor , <i>Singapore Anti Tuberculosis Association (SATA)</i> Jun 2023 – Present <ul style="list-style-type: none">Provided free weekly half day primary care services to (A) migrant workers and (B) needy elderly, at SATA CommHealth Clinics.
	Youth Leader , <i>Singapore Red Cross Society</i> Jul 2009 – Present <ul style="list-style-type: none">Led the Red Cross Youth NUS Chapter's community services projects for 15 years in multiple leadership positions (teacher advisor, vice-president, head of first aid and disaster management, head of overseas humanitarian project, head of logistics for community food aid).
	Medical Volunteer , <i>Kampong Glam Resident Committee</i> Mar 2021 – Apr 2021 <ul style="list-style-type: none">Led COVID-19 Vaccination awareness campaign and provided free vaccination advice to residents, together with Kampong Glam resident's committees of Bras Basah, Waterloo, Selegie and Crawford.

RESEARCH GRANTS

Firefighters' Heat Injury Prevention Grant, Home Team Science and Technology Agency Jun 2022

- Awarded a \$1.2 million grant to study application of machine learning algorithms to predict heat injuries from physiological parameters collected from wearables worn by firefighters.

AM ETHOS Medical Student Fellowship Grant,
Singhealth Duke-NUS Academic Medicine Center

Oct 2017

- Awarded a \$10,000 grant to study application of machine learning algorithms to Acute Coronary Syndrome patient PCI and echocardiograph datasets to predict patient mortality and morbidity.

SELECTED RESEARCH PUBLICATIONS

Publications

1. Anthony Li, A. H. Aung, W. M. Kyaw, R. Khanna, W. Y. Lim, H. Ang, A. L. P. Chow Harnessing a real-time location system for contact tracing in a busy emergency department, *Journal of Hospital Infection* [[Paper link](#)]
2. Anthony Li, M. L. Ong, C. W. Oei, W. X. Lian, H. P. Phua, H. L. Htun, W. Y. Lim, M. Motani Unified Auto Clinical Scoring (Uni-ACS) with Interpretable ML models, *Proceedings of Machine Learning Research, Machine Learning for Healthcare Conference 2022* [[Paper link](#)]
3. R. Khanna, H. L. Htun, Anthony Li, H. L. Goh, W. M. Khyaw, H. Ang, B. Ang, A. Chow Staff and patient surveillance in hospitals: Good sentinels for the emergence of the SARS-CoV-2 variants, *Journal of Infection* [[Paper link](#)]
4. R. H. F. Lim, H. L. Htun, Anthony Li, H. L. Goh, W. M. Khyaw, A. H. Aung, B. Ang, A. Chow Fending off Delta – Hospital measures to reduce nosocomial transmission of COVID-19, *International Journal of Infectious Diseases* [[Paper link](#)]
5. A. Chow, H. L. Goh, W. M. Kyaw, Anthony Li, R. H. F. Lim, B. Ang, Rostered routine testing for severe acute respiratory coronavirus virus 2 (SARS-CoV-2) infection among healthcare personnel—Is there a role in a tertiary-care hospital with enhanced infection prevention and control measures and robust sickness-surveillance systems?, *SHEA Journal: Infection Control & Hospital Epidemiology* [[Paper link](#)]
6. D. W. Lim, H. L. Htun, Y. Wang, Anthony Li, W. M. Kyaw, L. T. Lee, A. Chow, Healthcare workers as 'canaries' for acute respiratory infections and pathogens during the COVID-19 pandemic, *The Journal of Hospital Infection* [[Paper link](#)]

Abstracts

1. Anthony Li, T. Lim, J. J. Lee, E. Ng, Z. J. Ling Application of LLMs for Preventive Healthcare Intervention Recommendations, *AI Health Summit 2023* [Oral Presentation / Poster]
2. Anthony Li, W. Go, W. C. Chan, R. Chua Guidance Tool for Development and Implementation of Safe Healthcare AI, *Machine Learning for Healthcare Conference 2023* [Oral Presentation / Poster]
3. Anthony Li, Z. L. Huang, C. W. Oei, W. X. Lian, H. P. Phua, W. X. Ng, S. Y. Tay, Learning from failure: Explaining clinical ML model prediction errors, *Machine Learning for Healthcare Conference 2022* [Oral Presentation / Poster] [[Paper link](#)]
4. Anthony Li, C. W. Oei, H. P. Phua, W. X. Lian, L. H. Htet, S. H. Phua, G. P. Tan, H. Y. Xu, W. Y. Lim, J. Abisheganadan, Application of Uni-ACS to COPD for prediction of Frequent Readmissions, *Singapore Health and Biomedical Conference 2022* [Oral Presentation / Poster]
5. Anthony Li, C. W. Oei, H. P. Phua, W. X. Lian, L. H. Htet, W. Y. Lim, Application of Machine Learning to predict 1 year All Cause Mortality in Chronic Obstructive Pulmonary Disease, *Singapore Health and Biomedical Conference 2021* [Oral Presentation / Poster]

LEADERSHIP & MENTORSHIP	Member , NUS School of Public Health, Enhancing Telehealth in SG Programme	Aug 2023 – Present
	Tutor , Duke-NUS Medical School, Public Health Course	Aug 2023 – Present
	Member , National Preventive Medicine Residency Academic Committee	Jun 2023 – Present
	Tutor , NUS School of Medicine, Preventive Medicine Undergraduate Course	Aug 2022 – Present
	Advisor , Red Cross Youth Leadership Advisory Panel	Jan 2021 – Present
	Teacher Advisor , Red Cross Youth NUS Chapter	Jun 2014 – Present
	President , Duke NUS Medical Technologies Student Group	Aug 2017 – Aug 2018
	Vice President , Duke NUS Emergency Medicine Student Group	Aug 2017 – Aug 2018
	College Representative , Duke NUS Benjamin Sheares College	Aug 2017 – Jul 2019
	Clinical Peer Tutor , Longitudinal Integrated Clerkship	Oct 2017 – Aug 2018
	Vice President , Red Cross Youth NUS Chapter	Jun 2012 – Jun 2013
	Head , Red Cross Youth NUS Chapter Disaster Management Group	Jun 2011 – Jun 2012
	Logistics Head , Red Cross Youth NUS Chapter Project Rice and Project Dawn	Jun 2010 – Jun 2011
AWARDS	COVID-19 resilience medal , <i>Ministry of Health, Singapore</i>	Dec 2023
	<ul style="list-style-type: none"> Awarded by the Ministry of Health to recognise the substantive contributions of frontline healthcare workers who participated directly in Singapore’s fight against COVID-19. 	
	Permanent Secretary (Health) Team Award , <i>Ministry of Health, Singapore</i>	Jul 2023
	<ul style="list-style-type: none"> Awarded to Ministry of Health officers for outstanding health regulation, policy and legislation work. 	
	Young Investigator Award in Clinical Research, Silver , <i>SHBC 2022</i>	Oct 2022
	<ul style="list-style-type: none"> 2nd out of 365 submissions. Awarded to top clinical researchers under 40 years old, at Singapore’s National Healthcare Group’s annual healthcare and biomedical congress. 	
	Young Investigator Award in Clinical Research, Merit , <i>SHBC 2021</i>	Oct 2021
	<ul style="list-style-type: none"> Top 5 out of 633 submissions. Awarded to top clinical researchers under 40 years old, at Singapore’s National Healthcare Group’s annual healthcare and biomedical congress. 	
	LEAP award , <i>Singhealth Duke-NUS Academic Medicine Center</i>	Jul 2019
	<ul style="list-style-type: none"> Awarded to top 3 medical students who have gotten honours grade for their clinical research projects. 	
CERTIFICATIONS	2nd place , <i>NUS-NUHS-MIT Healthcare Datathon 2018</i>	Jul 2018
	<ul style="list-style-type: none"> 2nd out of 40 participating teams. Leveraged gradient boosted trees and neural networks to study risk of cardiovascular complications in 10,389 diabetic surgical patients. 	
	A*STAR Borderless Award , <i>Science and Engineering Research Council</i>	May 2014
	<ul style="list-style-type: none"> As a research grant administrator, I was recognised for outstanding cross agency policy contribution to A*STAR’s urban system’s initiative and Data Analytics platform. 	
	Dean’s List , <i>National University of Singapore</i>	Jul 2013
	<ul style="list-style-type: none"> Awarded to top 5% of engineering students in academic excellence in NUS Faculty of Engineering. 	
CERTIFICATIONS	Singapore Field Epidemiology Training Programme (5 weeks) NUS SSHSPH	Aug 2022
	<ul style="list-style-type: none"> The Singapore Field Epidemiology Training Programme (S-FETP) is conducted by the Saw Swee Hock School of Public Health and the National Centre for Infectious Diseases, to train participants in field investigation practice for infectious disease epidemiology. 	
	Epidemiology in Public Health Practice Specialisation (20 weeks) Coursera/JHU	Oct 2021
	<ul style="list-style-type: none"> [Certificate link] 	
	Deep Learning Specialisation (16 weeks) Coursera/DeepLearning.AI	Jun 2018
	<ul style="list-style-type: none"> [Certificate link] 	
CERTIFICATIONS	Probabilistic Graphical Models Specialisation (15 weeks) Coursera/Stanford University	Dec 2018
	<ul style="list-style-type: none"> [Certificate link] 	