# CHANG HO YOON

# CURRE

## **CURRENT PROJECTS**

#### AI & Digital Health consulting at AGMI

- Developing AI deployment strategy & operational optimisation models for Biopharma, Biotech and Healthcare institutions (US, APAC, LATAM)
- Collaborating with C-suite and directors for cross-functional development of AI tools, e.g., AI agents for competitive market analysis and due diligence
- · Data tools: Snowflake, AWS Cloud & SageMaker
- · Ontologies: ICD-10, SNOMED CT, LOINC, CPT codes

#### Chief Medical Officer at NEX Health Intelligence since 2022

Startup using a multimodal AI-based infection prevention platform

- Won British Infection Association grant to validate AI models at Guy's & St. Thomas' Hospital, London
- · Navigating regulation for digital health tools and AI in UK, Europe, USA
- Epic & Cerner integration

### AI & ML research, resource-abundant settings

Leading 4 international collaborations:

- Oxford, Auckland analysis of clinic data using Large Language Models
- Oxford, Oslo, Karolinska validation of machine learning-derived sepsis phenotypes
- Oxford, MIT improvement of stroke risk calculators using causal inference & machine learning
- · Oxford, Charité Berlin multiomic differentiation of viral & bacterial pneumonias

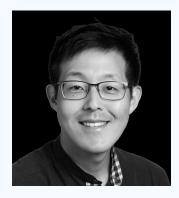
#### AI & ML research, resource-constrained settings

Leading the AI & data analytics arm

- Won 2nd prize (£600,000) Trinity-MIT Challenge on Antimicrobial Resistance
- Collaborating with Public Health India, LSHTM, Cambridge, & iKure to track and improve antimicrobial use in under-resourced communities in India

#### AI in law

• Co-creating an educational resource on AI implementation in legal practice with barrister Paul Bonner Hughes



#### **CONTACT**

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#### LANGUAGE SKILLS

R

Pythor

SQL

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Korean

French - certified C2 'mastery

Spanish - certified C2 'mastery

Kudos to the creators of **pagedown** and **datadrivencv** 

Last updated on 2025-07-10

### **EDUCATION** DPhil (PhD), Statistics & Biomedical Sciences 2023 Oxford, UK University of Oxford 2020 Wellcome Trust & Turing Institute Scholar • Thesis: "Application of statistical & AI methods in electronic health records to estimate the impact of antibiotic resistance" · R, PyTorch, TensorFlow, SQL · Developed neural network-based survival modelling · Applied causal inference & deep learning models incl. natural language processing · Annual travel grants to talk at ML for Healthcare, European Society of Clinical Microbiology & Infectious Diseases MBI, Master's of Bioinformatics 2020 OBoston, USA Harvard University | MIT 2019 Fulbright Scholar MB BChir (MD), Medicine & Surgery 2012 Cambridge, UK University of Cambridge 2006 University Academic & Music Scholar · MB BChir (MD) (Distinction, GPA 4.0) · BA in Natural Sciences (1st class, GPA 4.0) AI & TECH EXPERIENCE AI R&D Intern 2022 O London, UK QuantumBlack (McKinsey & Co.) • Built internal tool (Python, PyTorch) for semi-automatic, interpretable, causal AI · Collaborated with C-suite of US client, internal data engineers and scientists **Orion Healthcare** 2021 • Auckland, NZ Orion Health 2020 · Collaborated with C-suite to write internal white paper on ML & AI opportunities using electronic health data Co-Principal Programmer & Investigator 2018 • Auckland, NZ SCRIPT antibiotic app 2016 · Spearheaded the development, design & research of a smartphone app displaying antibiotic guidelines to hospital doctors · Won \$250,000 in national research grants · Continues to be downloaded & used 800,000+ times/year CLINICAL EXPERIENCE Senior Resident Current

Royal College of Physicians of Ireland

2025

O Dublin, Ireland

2025	ļ	Clinical Fellow
2024		Oxford University Hospitals NHS Trust
		Infectious Diseases, Haematology, Oncology
2021		Medical Resident
		Imperial College & Auckland Hospitals
2014		Oncology, Haematology, General Internal Medicine
		Prizes for Clinical, Teaching & Research Excellence
	F	SELECTED PUBLICATIONS
		Orcid ID for all affiliations & articles
2025	İ	Transformers and large language models are efficient feature extractors for electronic health record studies
		Communications Medicine (Nature) link, joint 1st author
2024	ļ	Distinct patterns of vital sign and inflammatory marker responses
		in adults with suspected bloodstream infection  Journal of Infection link
		Journal of Infection link
2023		Long-Term Impact of a Smartphone App on Prescriber Adherence to Antibiotic Guidelines for Adult Patients With Community- Acquired Pneumonia: Interrupted Time-Series Study
		Journal of Medical Internet Research link, 1st author
2022		A convolutional neural network highlights mutations relevant to antimicrobial resistance in Mycobacterium tuberculosis
		Nature Communications link, joint 1st author
2022		Mortality risks associated with empirical antibiotic activity in Escherichia coli bacteraemia: an analysis of electronic health records
		Journal of Antimicrobial Chemotherapy link, 1st author
2021		Machine learning in medicine: should the pursuit for enhanced interpretability be abandoned?
		Journal of Medical Ethics (BMJ) link, 1st author
	•	SELECTED INVITED TALKS
2024	ļ	Generative AI in clinical practice
		European Congress of Clinical Microbiology & Infectious Diseases
2022		Harnessing AI for genomic insights in drug-resistant TB $_{\text{WHO}}$
2020		Musings on AI
2020	Ĭ	IM Reasoning podcast
		Complex medical case
2017	ě	Complex medical case  IM Reasoning podcast
		in reasoning podedat

## ♣ TEACHING EXPERIENCE Co-creator of medical MCQs website Current MedCQs 2018 Machine learning & AI with biomedical data 2025 ♥ Zürich, Switzerland University of Zürich & ETH Zürich • Invited faculty, lecture & practical sessions on ML & AI tools applied to multimodal biomedical data Machine learning & AI with biomedical data 2022 Oxford, UK Oxford's Big Data Institute · Lecture & interactive seminar for Oxford PhD students using Google Colab. Tutor of natural sciences & medicine 2021 Multiple (see details) Medical simulations, clinical, pre-clinical 2010 · Created and taught pathology & bedside clinical simulation at Cambridge University, Imperial College, Auckland University · range of feedback scores: 4.5-4.9/5.0

# LEADERSHIP

2023

2023

2018

2020

**Environmental Officer** 

St. John's College, University of Oxford

#### Medical Residents' Training Committee

Royal Australasian College of Physicians (NZ)

#### MIT Grand Hack

Led teams to win Hacking Medicine & special industry prizes

# OTHER INTERESTS

#### Arts

Former professional, casual violinist for Auckland Philharmonia Orchestra Former lead violin understudy in Les Misérables - West End, London ABRSM Performance Diplomas: Distinctions in violin & piano Highland bagpiper Historical fiction

#### Sport

Triathlon incl. Ironman, marathon, trail ultramarathon, open-water swimming