

# JADE XIAO

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## EDUCATION

<b>Georgia Institute of Technology</b>   Atlanta, GA PhD in Operations Research	Aug 2019 – Aug 2023
<b>Georgia Institute of Technology</b>   Atlanta, GA MS in Operations Research	Aug 2019 – May 2022
<b>University of Auckland</b>   Auckland, NZ BE(Hons) in Engineering Science	Mar 2015 – Nov 2018
<b>National University of Singapore</b>   Singapore Non-Graduating Exchange Program	Aug – Dec 2017

## KEY SKILLS

<b>HEOR</b>	Simulation modeling   Cost-effectiveness analysis   Claims data analysis   Systematic literature review
<b>Coding</b>	R   C++   Python   MATLAB   Gurobi
<b>Languages</b>	English (native)   Cantonese (conversational)   Mandarin (conversational)

## EXPERIENCE

<b>Value Analytics Labs</b>   Atlanta, GA <i>Data Scientist</i> <ul style="list-style-type: none"><li>Simulation modeling of medical innovations for health technology assessment</li></ul>	Oct 2023 – Present
<b>Georgia Institute of Technology</b>   Atlanta, GA <i>Graduate Research Assistant, H. Milton Stewart School of Industrial and Systems Engineering</i> <ul style="list-style-type: none"><li>Lead modeler of the <a href="#">COVID-19 Policy Simulator</a>, featured on Fox News, The Rachel Maddow Show, and more</li><li>Conducted cost-effectiveness analysis of non-invasive screening strategies for detecting MASLD in high-risk patient populations</li><li>Developed a method for generating first-degree relative networks exhibiting familial aggregation of disease</li></ul>	Aug 2019 – Aug 2023
<b>Massachusetts General Hospital</b>   Boston, MA <i>Graduate Research Assistant, Institute for Technology Assessment</i> <ul style="list-style-type: none"><li>Developed a microsimulation model of the opioid epidemic to evaluate the effectiveness of the HEALing Communities Study</li></ul>	May 2022 – Aug 2023
<b>University of Auckland</b>   Auckland, NZ <i>Graduate Research Assistant, Department of Engineering Science</i> <ul style="list-style-type: none"><li>Developed an agent-based simulation model of electric taxi operations in Karlsruhe, comparing plug-in and inductive charging</li><li>Developed text parsers in GATE to identify missing Māori shareholders in newspaper obituaries and the National Pānui</li></ul>	Mar 2018 – Jul 2019
<b>Fisher &amp; Paykel Healthcare</b>   Auckland, NZ <i>Engineering Research Intern, Surgical Humidification</i> <ul style="list-style-type: none"><li>Developed a mathematical model of surgical smoke clearance and optical clarity in the pneumoperitoneum during laparoscopic surgery</li></ul>	Dec 2017 – Feb 2018
<b>University of New South Wales</b>   Sydney, AU <i>Undergraduate Research Assistant, School of Mechanical Engineering</i> <ul style="list-style-type: none"><li>Constructed realistic benchtop models of patient anatomy suitable for laser flow visualization and cannulation training</li></ul>	Nov 2016 – Feb 2017

## AWARDS & HONORS

### Professional Awards

- MERLOT Classic Award in Biology, 2022
  - Awarded to the COVID-19 Simulator

### University and School Awards

- George Family Foundation Fellowship, 2019
- Senior Scholar Award in the Faculty of Engineering, 2019
  - Awarded to the student with the highest overall grades in the UoA Engineering Science class of 2019
- Cecil M Segedin Prize in Engineering Science, 2019
  - Awarded to the most meritorious final year project of the UoA Engineering Science class of 2019
- Beca Part II Engineering Scholarship, 2016
- Cecil Segedin Undergraduate Scholarship in Engineering Science, 2016
- University of Auckland Dean's Honours List, 2015, 2016, 2018
- University of Auckland First in Course Award for LINGUIST 101, ENGSCI 711, ENGSCI 700
- New Zealand Qualifications Authority Scholarship Award, 2016

## HAS Student Liaison

- Managed HAS social media accounts
- Co-wrote quarterly student newsletter for sharing healthcare news and resources for graduate students

## Engineers Without Borders NZ | Auckland, NZ

Feb – Jul 2018

## Conference Marketing Manager

- Designed branding and marketing materials for Humanitarian Engineering 2018 (EWBNZ's annual conference)
- Managed social media advertising, email campaigns, and signage printing

## PUBLICATIONS AND PRESENTATIONS

## Conference abstracts

- J Chhatwal, J Xiao, A ElHabr et al. Abstract PR006: The potential of multi-cancer early detection screening for reducing cancer mortality. Presented at: AACR Special Conference in Cancer Research: Liquid Biopsy: From Discovery to Clinical Implementation; Nov 13–16; San Diego, CA. *Clinical Cancer Research*. 2024;30(21\_Suppl):Abstract nr PR006.
- J Chhatwal, J Xiao, S Merdan et al. Effect of multi-cancer early detection screening on late-stage cancers: A modeling study. Presented at: 2024 ASCO Annual Meeting; May 31–June 4; Chicago, IL. *Journal of Clinical Oncology*. 2024;42(16):11076-11076.
- J Chhatwal, J Xiao, S Merdan et al. HPR75 Can Multi-Cancer Early Detection Screening Result in Early Cancer Detection? A Modeling Study. Presented at: ISPOR 2024; May 5–8; Atlanta, GA. *Value in Health*. 2024;27(6):S207.
- H Johnson, D Hartzfeld, ML Peters et al. SA21 Economic Analysis of Germline Genetic Testing to Assess for Hereditary Colorectal Cancer: A Systematic Review. Presented at: ISPOR 2024; May 5–8; Atlanta, GA. *Value in Health*. 27(6):S399.
- J Xiao, M Haseeb, F Kanwal et al. HTA2 Cost-Effectiveness of a Clinical Care Pathway for the Screening of Nonalcoholic Fatty Liver Disease in Patients with Type 2 Diabetes Mellitus. Presented at: ISPOR Europe 2023; November 12–15; Copenhagen, DK. *Value in Health*. 2023;26(12):S320.
- J Chhatwal, O Dalgic, P Mueller et al. (2020). PIN68 COVID-19 Simulator: An Interactive Tool to Inform COVID-19 Intervention Policy Decisions in the United States. Presented at: Virtual ISPOR 2020; May 18–20. *Value in Health*. 23:S556.

## Journal articles

- J Xiao, T Ayer, J Chhatwal. Periodic vaccination for post-pandemic management: Insights from and planning beyond COVID-19. *IIE Transactions on Healthcare Systems Engineering*. 2024;14(4):289–304. doi.org/10.1080/24725579.2024.2340515
- M Haseeb, J Chhatwal, J Xiao et al. Semaglutide vs Endoscopic Sleeve Gastroplasty for Weight Loss. *JAMA Network Open*. 2024;7(4):e246221. doi.org/10.1001/jamanetworkopen.2024.6221
- J Chhatwal, OO Dalgic, W Chen et al. Analysis of a Simulation Model to Estimate Long-term Outcomes in Patients with Nonalcoholic Fatty Liver Disease. *JAMA Network Open*. 2022;5(9):e2230426. doi.org/10.1001/jamanetworkopen.2022.30426
- BP Linas, J Xiao, OO Dalgic et al. Projecting COVID-19 Mortality as States Relax Nonpharmacologic Interventions. *JAMA Health Forum*. 2022;3(4):e220760. doi.org/10.1001/jamahealthforum.2022.0760

## Technical reports

- J Chhatwal, Y Xiao, P Mueller et al. Changing Dynamics of COVID-19 in the US with the Emergence of the Delta Variant: Projections of the COVID-19 Simulator. *medRxiv*. 2020. medrxiv.org/content/10.1101/2021.08.11.21261845v1

## Large group authorship articles

- VK Lopez, EY Cramer, R Pagano et al. Challenges of COVID-19 Case Forecasting in the US, 2020–2021. *PLoS Computational Biology*. 2024;20(5):e1011200. doi.org/10.1371/journal.pcbi.1011200
- EY Cramer, Y Huang, Y Wang et al. The United States COVID-19 Forecast Hub dataset. *Scientific Data*. 2022;9(1):462. doi.org/10.1038/s41597-022-01517-w
- EY Cramer, EL Ray, VK Lopez et al. Evaluation of individual and ensemble probabilistic forecasts of COVID-19 mortality in the United States. *Proceedings of the National Academy of Sciences*. 2022;119(15):e2113561119. doi.org/10.1073/pnas.2113561119