

# D. Ruben Tjhie

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## Education

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University of Toronto, M.A.Sc. in Industrial Engineering 2025 (exp.)  
University of Toronto, B.A.Sc. in Computer Engineering 2018

## Research Experience

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### University Health Network

Research Assistant, Centre for Digital Therapeutics (Dr. Quynh Pham) 2024–

- ◆ Conducting a literature review of human factors methods and frameworks for the design of digital therapeutics for older adults from marginalized racial and ethnic groups, laying the groundwork for a future grant proposal.

Research Assistant, Healthcare Human Factors (Dr. Joe Cafazzo) 2023–

### University of Toronto

Research Assistant,

Wellness & Health Enhancement Engineering Lab (Dr. Enid Montague) 2023–

- ◆ Examining equity in the practice of usability evaluation of health technologies by engaging with usability practitioners using focus groups, interviews, and qualitative surveys.
- ◆ Assisting in designing usability studies, including developing protocols, study materials, and managing ethics review.

## Grants & Awards

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### Digital Research Alliance of Canada

Promoting open science in human factors engineering with researchers from equity-seeking groups. Sep. 2024–Mar. 2025. \$33,500.

### TRANSFORM HF

Student Collaborator. Establishing equitable human factors design methods to improve digital therapeutics for heart failure management. 2024–2025. \$9,700.

(PI: Quynh Pham)

Tjhie, D.R.

## Conference Papers

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**D. Ruben Tjhie**, Enid Montague, and Joseph A. Cafazzo. 2024. Using a Critical FMEA Approach to Identify Equity-Related Failures in Usability Evaluations of Health Technologies. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. <https://doi.org/10.1177/10711813241260389>

## Oral Presentations

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*Using a Critical FMEA Approach to Identify Equity-Related Failures in Usability Evaluations of Health Technologies*

- ◆ Transform HF Fall Network Event, Toronto, Canada. (scheduled Nov. 8, 2024)
- ◆ Inter-University Workshop, University at Buffalo, Buffalo, NY, USA. (Oct. 15, 2024)
- ◆ ASPIRE—International Annual Meeting of the Human Factors and Ergonomics Society, Phoenix, AZ, USA. (Sep. 10, 2024)

*Contextual Integrity in Remote Patient Monitoring Systems*

- ◆ Symposium on Applications of Contextual Integrity, Rutgers University, New Brunswick, NJ, USA. (Sep. 27, 2024)

## Teaching Experience

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### University of Toronto

#### *Teaching Assistant*

- ◆ *MIE1401 Introduction to Human Factors Engineering (Fall 2024)*
- ◆ *MIE509 AI for Social Good (Fall 2024)*
- ◆ *MIE240 Human-Centred Systems Design (Winter 2024)*
- ◆ *MIE354 Business Process Engineering (Fall 2023)*

#### *Guest Lectures*

- ◆ *Introduction to Human Factors Engineering (scheduled Nov. 13, 2024)*
- ◆ *Methods in Prototyping and Usability Evaluation (scheduled Oct. 26, 2024)*

## Service

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### Human Factors Interest Group

#### *Secretary-Treasurer*

2024–

*HFES Student Chapter at the University of Toronto that promotes the disciplines of human factors & ergonomics through events and programming.*

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## Service (cont'd)

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### Gradient Spaces

*Founding Board Member* 2020–2024

*Launched a new not-for-profit organization to support early 2SLGBTQ+ entrepreneurs through programming developed in partnership with the Toronto start-up ecosystem. Gradient Spaces was acquired by QueerTech in 2024.*

### Venture Out

*Chair (and several other preceding roles)* 2017–2020

*Hosted in-person and virtual events for 2SLGBTQ+ technology professionals to learn, connect, and celebrate. Venture Out is a part of Start Proud, a not-for-profit focused on the professional development of queer students and professionals.*

## Industry Experience

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### Shopify

*Privacy Engineer* 2021–2023

### League

*Software Engineer* 2019–2021

### AMD

*Silicon Engineer* 2018–2019

*Intern* 2016–2017

## Certifications

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### International Association of Privacy Professionals

*Certified Information Privacy Technologist* 2022–

## Other Specialized Training (in-progress)

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### Collaborative Centre for Climate, Health & Sustainable Care

*Climate, Health, and Sustainable Care [Student Training Program](#)* 2024–

### OLS

*[Open Seeds](#) (Open Science Training)* 2024–

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## Professional Affiliations

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Human Factors and Ergonomics Society (HFES)

International Association of Privacy Professionals (IAPP)

ACM

IEEE