Fernando J. **Yanez**

EDUCATION

University of Toronto	**Toronto, Canada**

Ph.D. in Computer Science (Direct Entry) - Anticipated graduation date: 11/2026   Sep. 2021 - Present

Introduction to ML (A+) - NN Training Dynamics (A+) - Applied Statistics (A) - Multidisciplinary HCI (A)

Comp. Social Science (A) - Business of Software (A) - Empirical Research Methods in SW Eng. (A+) - InfoVis (A-)

Metropolitan University	**Caracas, Venezuela**

BSc in Systems Engineering (GPA: 3.86)   Jan. 2016 - Jul. 2018

Diploma in Advanced Mathematics (GPA: 4.00)   Apr. 2016 - Jul. 2017

Simon Bolivar University	**Caracas, Venezuela**

Partial studies of BSc in Production Engineering (GPA: 3.66)   Oct. 2013 - Mar. 2016

RESEARCH EXPERIENCE

Human Interactive Visualizations - HIVE Lab - University of Toronto	**Toronto, Canada**
Ph.D. Candidate	Sep. 2022 - Present

Ph.D. Thesis
- Latent User Trait Modeling and Intelligent Personalization for User-Adaptive Visualizations, supervised by [Prof. Carolina Nobre](#)

Intelligent Adaptive Interactions Lab - University of Toronto	**Toronto, Canada**
Ph.D. Student	Jul. 2021 - Aug. 2022

- Implemented Multi-Armed Bandits algorithms in educational settings, supervised by Prof. J. Williams.

QUANTIC - Barcelona Supercomputing Center	**Barcelona, Spain**
Visiting Researcher	Sep. 2019 - Nov. 2019

- Studied Gaussian Processes and their intersections with Quantum Computing, supervised by [Prof. J.I. Latorre](#).

Metropolitan University	**Caracas, Venezuela**
Researcher	Jan. 2019 - Jan. 2020

- Improved Classification Accuracy of Three-Player GANs by adding different training techniques.
- Optimized the Efficiency of Radio-Controlled Aircraft by Selecting the Propeller using Neural Networks.

Undergraduate Thesis	Jan. 2018 - Jun. 2018

- Implemented Redundancy Analysis through a Neural Network, supervised by [Prof. J.C. Trabucco](#).

INDUSTRY EXPERIENCE

Microsoft	**Vancouver, Canada**
Software Engineer	Jan. 2020 - Sep. 2021

As a Developer on the Services Platform for Account & Connected Experiences team within Microsoft's Windows + Devices (W+D) organization, I contributed to designing and implementing critical web services for products like Windows 11 and account.microsoft.com. Leveraging technologies such as C# and Kusto, I built APIs and integrated services with major backend systems like Office and Xbox. My work focused on delivering personalized, cloud-powered experiences, driving innovation across platforms, and supporting subscription-aware features in Windows 11, directly impacting revenue-generating scenarios.

PATENTS

Rey, R., **Yanez, F.**, Houfa, M. (2024). *Shared Visual Content Filtering during Virtual Meetings*. **US-11881958-B2.** *([link](#))*

Yanez, F., Rey, R., Houfa, M. (2023). *User-specific Computer Interaction Recall*. **US-11789944-B2**. *([link](#))*

Rey, R., Houfa, M., **Yanez, F**. (2022). *Method and System of Intelligently Providing Responses for a User in the User's Absence*. **US-11418463-B2**. *([link](#))*

PUBLICATIONS

In Progress

    Yanez, F., Nobre, C. (2024). *Four-Factor User Model Based in Latent User Traits and its Implications in User Experience*. To be submitted at UMAP 2025.

Under Review

    Yanez, F., et al. (2024). *Exploring the Role of User Representations in Visual Analysis: Predicting Visualization Preferences and Task Performance*. Under review at CHI 2025 *(double-blind peer review)*.

    Yanez, F., Conati, C., Ottley, A., Nobre, C. (2024). *The State of the Art in User-Adaptive Visualizations*. Under review at the Computer Graphic Forum Journal. *(link)*

Published

    Yanez, F., Nobre, C. (2024) *User-Adaptive Visualizations: An Exploration with GPT-4*. 9th Machine Learning Methods in Visualisation for Big Data Workshop at the annual Conference EuroVis 2024. *(link)*

    Yanez, F., Zavaleta-Bernuy, A., Han, Z., Liut, M., Rafferty, A., Williams, J.J. (2022) *Increasing Students' Engagement to Reminder Emails Through Multi-Armed Bandits*. 6th Educational Data Mining in Computer Science Education Workshop at the annual Conference on Educational Data Mining. *(link)*

    Li, T., Nogas, J., **Yanez, F.**, Modiri, A., Deliu, N., Prystawski, B., Villar, S.S., Durand, A., Rafferty, A., Williams, J.J. (2021) *Algorithms for Adaptive Experiments that Trade-off Statistical Analysis with Reward: Combining Uniform Random Assignment and Reward Maximization*. Causal Inference Challenges in Sequential Decision Making: Bridging Theory and Practice workshop at the annual Conference on Neural Information Processing Systems. *(link)*

    Yanez, F., Medina, A., Trabucco, J. (2019). *Building Bridges: Implementing Redundancy Analysis by means of a Neural Network*. LatinX in AI Research workshop at the annual Conference on Neural Information Processing Systems. *(link)*

Pre-Prints

    Christofferson, K.*, **Yanez, F***. (2022). *Three-Player Game Training Dynamics*. *(link)*

TEACHING EXPERIENCE

University of Toronto   **Toronto, Canada**

    Course Instructor   Sep. 2022 - Apr. 2024

        Department of Electrical & Computer Engineering
        - ECE286 Probability and Statistics *(W24)*

        Department of Computer Science
        - CSC108 Introduction to Computer Programming *(F22, W23, F23, W24)*

    Teaching Assistant   Sep. 2021 - Dec. 2023

        Department of Computer Science
        - CSC2702 Technical Entrepreneurship *(F24)*
        - CSC111 Foundations of Computer Science II *(F24)*
        - CSC108 Introduction to Computer Programming *(F21, W22, S23, F24)*
        - CSC148 Introduction to Computer Science *(W23)*
        - CSC2701 Communications for Computer Scientists: Interview Training Module *(W23)*

        Faculty of Information
        - INF2190H Data Analytics: Introduction, Methods and Practical Approaches *(F23)*

        Department of English
        - ENG286 Literature and Data *(F23)*

        Department of Computer and Mathematical Sciences (University of Toronto Scarborough)
        - MATA33 Calculus for Management II *(W23)*
        - MATA32 Calculus for Management I *(F22)*

        Department of Chemistry
        - CHE223 Statistics I *(Winter 2023)*

Metropolitan University   **Caracas, Venezuela**
  Adjunct Instructor   Sep. 2018 - Dec. 2019
    Department of Project Management and Systems
    - BPTSP05 Algorithms and Programming *(W19, S19)*
    Department of Mathematics
    - BPTMA21 Statistics I *(W19, S19)*
    - BPTMI11 Differential Equations *(W19, 19)*
    - FBTMM00 General Mathematics *(F18, 19, S19)*

HONORS & AWARDS

Schwartz Reisman Institute for Technology and Society - University of Toronto   **Toronto, Canada**
  Graduate Fellowship: 7,500 CAD.   Jul. 2024 - Present
Massey College - University of Toronto   **Toronto, Canada**
  Junior Fellowship.   Sep. 2023 - Present
Ontario Student Assistance Program   **Toronto, Canada**
  Queen Elizabeth II Graduate Scholarship: 15,000 CAD.   Sep. 2022 - Aug. 2023
Amii   **Edmonton, Canada**
  AI Week Talent Bursary program: 1,500 CAD to attend AI Week 2022.   May 24-27, 2022
Microsoft   **Vancouver, Canada**
  Honorable Mention in Microsoft's Hackathon project related to computer vision   July 27-29, 2020
  and privacy in videoconferences.
Latinx in AI   **Vancouver, Canada**
  Travel Grant of 3,210 USD to participate in the Research Workshop at NeurIPS.   Dec. 2019
SAE Aero Design East - International Micro Class   **Lakeland, FL USA**
  2nd place SAE International Micro Class Award.   Mar. 2018
  1st place Highest Payload Performance - 1st place Oral Presentation - 2nd place Written Design Report.
Metropolitan University   **Caracas, Venezuela**
  Graduated Cum Laude in BSc, 2nd in class.   Feb. 2019
  Honorable Mention in Undergraduate Thesis.   Jun. 2018
  Academic Performance Scholarship.   Sep. 2016 - Jul. 2018

LEADERSHIP EXPERIENCE

Massey College - University of Toronto   **Toronto, Canada**
  Mentoring and Tutoring Committee Co-chair.   Oct. 2023 - Present
  Member of the Lionel Massey Fund.   Oct. 2023 - Present
EuroVis 2024   **Odense, Denmark**
  Volunteer.   May 27-31 2024
Department of Computer Science - University of Toronto   **Toronto, Canada**
  Volunteer as a mentor for the Grad Application Assistance Program.   Nov. 2022 - Dec. 2022
  Volunteer as MScAC Mentor for Technical interview preparation.   Sep. 2022 - Dec. 2022
Find Your Path Organization   **Toronto, Canada**
  Volunteer Math Tutor for High School Students from Black Communities.   Oct. 2021 - Jun. 2022
Microsoft   **Vancouver, Canada**
  Volunteer interviewer for the University Graduates program.   Jan. 2021 - Apr. 2021
UNIMET SAE Aero Design   **Caracas, Venezuela**
  Member and Secretary-General.   Sep. 2016 - Jul. 2018
Thespis Theater Group   **Caracas, Venezuela**
  Actor.   Sep. 2016 - Jul. 2018
AIESEC   **Curitiba, Brazil**
  Volunteer at a foster home for children in risk situations.   Dec. 2016 - Jan. 2017