

Fernando J. Yanez

EDUCATION

University of Toronto

Toronto, Canada

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

Sep. 2021 - Present

Intro to ML (A+) - NN Training Dynamics (A+) - Multidisciplinary HCI (A) - Comp. Social Science (A)

Business of Software (A) - Applied Statistics (A) - Empirical Research Methods in Software Engineering

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

Jan. 2018 - Mar. 2018

OTHER EDUCATION

University of Toronto

Online

SGS Graduate Centre for Academic Communication

- Writing NSERC Proposals (Writing Intensive)

Aug. 2022

- Prewriting Strategies for Developing and Organizing Your Ideas

Jan. 2022 - Feb. 2022

Carnegie Mellon University

Online

Simon Initiative LearnLab Summer School

Jul. 2021

- Computational Models of Learning Track. Built a generative model of learning to predict human learning by implementing the Apprentice Learner Architecture.

INDUSTRY EXPERIENCE

Microsoft

Vancouver, Canada

Software Engineer

Jan. 2020 - Sep. 2021

- Developer at the Services Platform for Account & Connected Experiences team in the W+D organization contributing to different web services powering Windows' and account.microsoft.com's experiences while connecting with major backend services (e.g., Office, Xbox).

PATENTS

Rey, R., Yanez, F., Houfa, M. (2021). *Shared Visual Content Filtering during Virtual Meetings*.

MS#410324-US-NP. ([link](#))

Yanez, F., Rey, R., Houfa, M. (2021). *User-specific Computer Interaction Recall*. MS#409592-US-NP. ([link](#))

Rey, R., Houfa, M., Yanez, F. (2020). *Method and System of Intelligently Providing Responses for a User in the User's Absence*. MS#409015-US-NP. ([link](#))

RESEARCH EXPERIENCE

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

- ML-powered visualizations for personalized visual literacy, supervised by Prof. Carolina Nobre.
- State-of-the-art Report in User-Adaptive Visualizations (work in progress, EuroVis 2023).

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

- Implement Multi-Armed Bandits algorithms in educational settings, supervised by Prof. Joseph Williams.

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

- Study Gaussian Processes and their intersections with Quantum Computing, supervised by Prof. J.I. Latorre.

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

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

Undergraduate Thesis Jan. 2018 - Jun. 2018

- Implementing Redundancy Analysis through a Neural Network, supervised by Prof. J.C. Trabucco.

PUBLICATIONS

Workshop Papers

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*. Paper presented at the 6th Educational Data Mining in Computer Science Education Workshop at the annual Conference on Educational Data Mining.

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*. Paper presented at the Causal Inference Challenges in Sequential Decision Making: Bridging Theory and Practice workshop at the annual Conference on Neural Information Processing Systems.

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

TEACHING EXPERIENCE

University of Toronto

Toronto, Canada

Course Instructor

Sep. 2022 - Apr. 2023

Department of Computer Science

- CSC108 Introduction to Computer Programming (*Fall 2022, Winter 2023*)

Teaching Assistant

Sep. 2021 - Apr. 2023

Department of Computer Science

- CSC148 Introduction to Computer Science (*Winter 2023*) - Lab TA
- CSC2701 Communications for Computer Scientists: Interview Training Module (*Dec.-Jan.*) - Tutorial TA
- CSC108 Introduction to Computer Programming (*Fall 2021, Winter 2022*) - Lecture TA

Department of Computer and Mathematical Sciences (University of Toronto Scarborough)

- MATA32 Calculus for Management I (*Fall 2022*) - Tutorial TA
- MATA33 Calculus for Management II (*Winter 2023*) - Tutorial TA

Department of Chemistry

- CHE223 Statistics I (*Winter 2023*) - Tutorial TA

Metropolitan University

Caracas, Venezuela

Adjunct Instructor

Sep. 2018 - Dec. 2019

Department of Project Management and Systems

- BPTSP05 Algorithms and Programming (*Winter 2019, Summer 2019*)

Department of Mathematics

- BPTMA21 Statistics I (*Winter 2019, Summer 2019*)
- BPTMI11 Differential Equations (*Winter 2019, Summer 2019*)
- FBTMM00 General Mathematics (*Fall 2018, Winter 2019, Summer 2019*)
- FGPM02 Elements of Mathematics II (*Fall 2018*)

Tutorial Undergraduate Teaching Assistant

Apr. 2016 - Dec. 2017

Department of Project Management and Systems

- BPTSP05 Algorithms and Programming (*Fall 2017*)
- FPTSP15 Economic Engineering (*Winter 2017*)

Department of Physics

- BPTFI01 Physics I (*Summer 2016*)

Simon Bolivar University

Caracas, Venezuela

Tutorial Undergraduate Teaching Assistant

Sep. 2014 - Mar. 2016

Department of Physics

- FS1112 Physics II (*Winter 2015, Summer 2015*)
- FS1111 Physics I (*Fall 2014, Winter 2015*)

HONORS & AWARDS

Ontario Student Assistance Program

Queen Elizabeth II Graduate Scholarship: 15,000 CAD.

Amii

AI Week Talent Bursary program: 1,500 CAD to attend AI Week 2022.

Microsoft

Honorable Mention in Microsoft's Hackathon project related to computer vision and privacy in videoconferences.

Latinx in AI

Travel Grant of 3,210 USD to participate in the Research Workshop at NeurIPS.

SAE Aero Design East - International Micro Class

2nd place SAE International Micro Class Award.

1st place Highest Payload Performance - 1st place Oral Presentation - 2nd place Written Design Report.

Metropolitan University

Graduated Cum Laude in BSc, 2nd in class.

Honorable Mention in Undergraduate Thesis.

Academic Performance Scholarship.

Toronto, Canada

Sep. 2022 - Aug. 2023

Edmonton, Canada

May 24-27, 2022

Vancouver, Canada

July 27-29, 2020

Vancouver, Canada

Dec. 2019

Lakeland, FL USA

Mar. 2018

Caracas, Venezuela

Feb. 2019

Jun. 2018

Sep. 2016 - Jul. 2018

LEADERSHIP EXPERIENCE

Department of Computer Science - University of Toronto

Volunteer as a mentor for the Grad Application Assistance Program.

Volunteer as MScAC Mentor for Technical Interviews preparation.

Find Your Path Organization

Volunteer Math Tutor for High School students from Black Communities.

Microsoft

Volunteer interviewer for the University Graduates program.

UNIMET SAE Aero Design

Member and Secretary-General.

Thespis Theater Group

Actor.

UNIMET Federation of Student Councils

Member.

Art of Living Foundation

Volunteer.

Saint Augustine High School

Personal Growth Counselor.

AIIESEC

Volunteer at a foster home for children in risk situations.

USB Ultimate Frisbee Team

Member.

Toronto, Canada

Nov. 2022 - Present

Sep. 2022 - Dec. 2022

Toronto, Canada

Oct. 2021 - Jun. 2022

Vancouver, Canada

Jan. 2021 - Apr. 2021

Caracas, Venezuela

Sep. 2016 - Jul. 2018

Caracas, Venezuela

Sep. 2016 - Jul. 2018

Caracas, Venezuela

Sep. 2016 - Jul. 2017

Caracas, Venezuela

Jan. 2015 - May 2017

Caracas, Venezuela

Sep. 2010 - May 2017

Curitiba, Brazil

Dec. 2016 - Jan. 2017

Caracas, Venezuela

Sep. 2014 - Jul. 2016