

# ANYA M. FORESTELL

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## SUMMARY OF QUALIFICATIONS

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- Passionate about empowering women and girls' education, gave Mini-TEDTalk alongside global leaders at United Nations HeForShe Anniversary event, New York City
- Video-making and workshop-creating skills, as seen through SHAD and Minute School work experiences
- Eager to learn, explore, and teach, demonstrated through research experience at TRIUMF, Perimeter Institute
- Knowledge of Python, basic C++, Octave, FITS image analysis, SAOImage DS9 image analysis
- Fluent in French as a first language, basic self-taught Spanish

## EDUCATION

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**University of Waterloo** – Waterloo, Ontario September 2015 – April 2020 (expected)  
*Candidate for Bachelor of Science, Honours Co-operative Physics and Astronomy*

- Term Dean's Honour List and Excellent Academic Standing every term
- Relevant courses: Mechanics (100%); Modern Physics (100%); Introduction to the Universe (99%); Computational Physics 1 (81%); Project Management (CR); Geometrical and Physical Optics (97%); Electricity and Magnetism 1 (100%); Astronomical Observations, Instrumentation, and Data Analysis Lab (90%); 3<sup>rd</sup> Year Astronomy Laboratory (98%).

**HarvardX** May 2020 – July 2020 (expected)

*Candidate for a Verified Certificate – Online courses from Harvard University*

- Current course: Tangible Things: Discovering History Through Artworks, Artifacts, Scientific Specimens, and the Stuff Around You
- Currently developing an understanding of museum curation, history, and the organization and interpretation of scientific artifacts.

## RELEVANT EXPERIENCE

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**Schrodinger's Hack** – Waterloo, Ontario June 2019 – Present  
*Co-founder*

- Co-founded Waterloo's first physics-themed hackathon to encourage coding skills in physics students.
- Successfully fundraised thousands of dollars; gathered overwhelming interest; organizing detailed logistics.

**University of Waterloo International Genetically Engineered Machine (iGEM)** – Waterloo, Ontario  
*Team Lead (2018-2019), Human Practices Member (2017)* March 2017 – December 2019

- Successfully organized workshop for SHAD Valley (high school) students.
- Organized and moderated panel discussion with Women in STEM on gender equality in STEM fields.
- Led team to being awarded a silver medal at international synthetic biology competition in Boston, MA.

**Perimeter Institute for Theoretical Physics** – Waterloo, Ontario May 2019 – August 2019  
*Research Assistant, Universe with a Thermal Origin*

- Selected to work on summer-long research project; developed equation for graviton thermal background.
- Attended two-week, in-depth physics summer school; presented cosmology project with a team of students from around the world.

**TRIUMF** – Vancouver, British Columbia January 2018 – April 2018  
*Atom Trap Beta Decay Research Assistant, TRIUMF Neutral Atom Trap*

- Wrote Python codes to predict/analyse results; used Octave to analyse image data; worked with C++.
- Designed, set up, and ran tests to optimize magnetic fields surrounding atom trap using Helmholtz coils.

**Minute School Inc.** – Waterloo, Ontario January 2017 – April 2017  
*Micro-Course Developer*

- Fully developed online courses on Newtonian Mechanics and Waves, Electricity, Magnetism and Optics; created text pieces, video slides, audio recordings, and quiz questions.
- Gave valuable input on product design and marketing to enhance student experience.

**SHAD Valley International** – Saskatoon, Saskatchewan

July 2016

*Program Assistant*

- Chaperoned students (aged 15-18) 24/7 for a month; supervised them on planned off-site excursions.
- Developed and led workshops on telescopes, theatre, and other subjects, providing exciting learning and growth opportunities.
- Encouraged students in their academic and personal development through productive discussions and team-building activities.

**Sylvan Learning** – Fredericton, New Brunswick

May, June, and August 2016

*Teacher*

- Supported students from kindergarten to grade 12 in subjects such as math, French, English, and chemistry.

## **SKILLS, LANGUAGES, & INTERESTS**

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**Skills:** Video making, Python, basic C++, Octave and SAOImage DS9 (image analysis), LaTeX.

**Languages:** French as a first language, both spoken and written; basic self-taught Spanish.

**Theatre Credits:** Lead role of Rae in *all of the things we're taking* (2019); role of Mother/Reporter/Billie in *Welcome to the Tree Museum* (2019); role of The Couch in *Concord Floral* (2017); lead role of Boy in Upstart Festival's *The Rocket Man* (2016).

**Interests:** Teaching, geography, astronomy, cooking, piano (RCM Grade 8), dance (ballet, modern, Irish).

## **ADDITIONAL EXPERIENCE AND ACHIEVEMENTS**

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**Various** – Waterloo, Ontario and Fredericton, New Brunswick

- Guest at several science conventions and school events, encouraging youth and women to explore STEM fields (Sept 2015 – Present)
- PhysInterconnected – Mentor to new students, assisting transition to university life. (Sept 2016 – Present)
- Presented Mini-TEDTalk alongside global leaders at United Nations HeForShe Anniversary event, New York City. (Sept 2016)
- Orientation Leader - Guided first year students through their activities. (Jan 2016 – Sept 2016)
- Selected as one of 10 Canadian women to attend the International Summer School for Young Physicists at Perimeter Institute, Waterloo. (July 2014)

**WatLock** – Waterloo, Ontario

September 2018 – December 2019

*UBC Mars Colony – Project Airlock Challenge, User Interface (2019), Mechanical Research (2018-2019)*

- Contributed to design of the UI and water filtration systems meant for airlock on Mars.

**University of Waterloo Undergraduate Physics Society** – Waterloo, Ontario

January 2016 – August 2018

*President (2017-2018), Vice-President (2016-2017)*

- Efficiently oversaw and organized society events and activities, enhancing society profile.
- Member of the Science Society Board of Directors; influencing political decisions impacting student life.

**University of Waterloo WatPD** – Waterloo, Ontario

September 2017 – December 2017

*Professional Development Teaching Assistant – Career Fundamentals; Processes for Technical Report Writing*

- Provided valuable feedback on student resumes, interviewing skills, and technical report writing skills.
- Worked part-time September – December (2018, 2019) to support students in job search.

**University of Waterloo FemPhys** – Waterloo, Ontario

September 2016 – December 2017

*Volunteer (2017), PhysClub Liaison (2016-2017)*

- Represented PhysClub's input at FemPhys meetings; assisted in the organization and running of events.

## **AWARDS**

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- HeForShe IMPACT Scholarship, valued at \$12,000 2015-2020
- Loran Award Finalist, recipient of scholarship valued at \$3,000 2015
- Universities Canada Award, valued at \$2,500 2015
- University of Waterloo President's Scholarship of Distinction, valued at \$2,000 2015
- Schulich Leader nominee 2015