


# LYA CHIÑAS (SHE/HER)

Ph.D. STUDENT | MACHINE LEARNING FOR METABOLIC ENGINEERING

 Toronto, Canada

 [lya.chinas@mail.utoronto.ca](mailto:lya.chinas@mail.utoronto.ca)

 [Lya Chiñas Serrano](#)

## EDUCATION

### Ph.D. STUDENT

*University of Toronto*

Toronto, Canada • Sept 2024 – Present

### B.S. IN BIOTECHNOLOGY ENGINEERING

*Tecnológico de Monterrey*

Puebla, Mexico • Aug 2020 – Jun 2024

GPA 4.0, First in Class Honors

## PROGRAMMING

**Software:** Python, MATLAB, Simulink, Minitab, SuperPro Designer, Vensim

**Content Creation:** Adobe (Photoshop, Illustrator, Premiere Pro), Affinity (Photo, Designer, Publisher)

**Tools:** NumPy, Pandas, scikit-learn, PyTorch, Matplotlib, Git, LaTeX

## LABORATORY

Genetic engineering, *in vitro* plant and animal tissue culture, microbiology assays, bioreactor control, protein purification

## LANGUAGES

**Spanish** • Native

**English** • Advanced • TOEFL C1

**French** • Elementary • DELF A2

## FELLOWSHIPS

- Massey College Junior Fellowship
- American Institute of Chemical Engineers

## VOLUNTEERING

- Tutoring undergraduate students in Science and Engineering courses.

## MISCELLANEOUS

- Freelance work as Graphic Designer for local businesses

## EXPERIENCE

TEACHING ASSISTANT | CHE222 'PROCESS DYNAMICS: MODELING, ANALYSIS AND SIMULATION'

*University of Toronto* • Toronto, Canada • Jan 2025 – Present

- Conducting tutorials and practical laboratories on process engineering modeling.
- Designing and supervising the final project focused on programming for simulating chemical reactors.

GRADUATE STUDENT RESEARCHER | LABORATORY FOR METABOLIC SYSTEMS ENGINEERING

*University of Toronto* • Toronto, Canada • Sept 2024 – Present

- Constructing and evaluating deep learning predictive models that address data scarcity in metabolic modeling.
- Compiling large datasets of omics information, using NLP techniques for text mining.

MITACS GLOBALINK RESEARCH INTERN | LABORATORY FOR METABOLIC SYSTEMS ENGINEERING

*University of Toronto* • Toronto, Canada • Jul 2023 – Oct 2023

- Conducted a research internship in Canada with fully funded living expenses.
- Developed a Python framework for the reconstruction of Genome-Scale Models.

ORGANIZING COMMITTEE | BIOMOLECULE RESEARCH LAB SYMPOSIUM 2023

*Tecnológico de Monterrey* • Puebla, Mexico • Feb 2023 – Jun 2023

- Organized the first edition of a scientific research symposium
- Secured participation of leading researchers from various countries as speakers

ORGANIZING COMMITTEE | LATIN FOOD 2022

*Mexican Association of Food Science (AMECA, A.C.)* • Puebla, Mexico • Jun 2022 – Nov 2022

- Participated in the organization of one of Mexico's largest biotechnology congresses, leading the review of over 500 abstracts of the presented research.

## AWARDS

CONNAUGHT INTERNATIONAL SCHOLARSHIP

*University of Toronto* • 2024 – 2029 • Highly competitive scholarship that provides financial assistance to international Ph.D. students.

CONAHCYT SCHOLARSHIP

*Consejo Nacional de Humanidades, Ciencias y Tecnologías* • 2024 – 2029 • Scholarship that supports Mexican students pursuing novel graduate studies abroad.

## PRESENTATIONS

9TH CONFERENCE ON CONSTRAINT-BASED RECONSTRUCTION AND ANALYSIS

San Diego, USA • 2024 • Oral & poster presentations

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS ANNUAL MEETING

San Diego, USA • 2024 • Oral presentation