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Research Interest

As I complete my final semester in Computer Science, I am eager to pursue graduate studies that combine artificial intelligence with the ethical considerations it demands. My academic interests center on computational theory, critical theory focused on philosophy of technology, and developing explainable AI frameworks.

Education

Bachelor's Degree in Computer Science

Aug 2021 – Jun 2026

Universidad Nacional Autónoma de México (UNAM)

- GPA: 94/100
- **Fields of Interest:** Theoretical Computing, AI, Parallel Computing, Philosophy of Science, Logic
- [Research Member at the Philosophy of Computation Group since 2024](#) [↗](#)

Work Experience

Software Quality Engineer Tools

Dec 2025 – Present

Teradata

- Migrated CI/CD pipelines from GitLab to GitHub Actions for improved automation
- Created automated AI workflows with AI agents and MCPs to reduce UI test creation time
- Developed 500+ automated tests across three projects for bug reporting and quality assurance
- Created CI/CD pipeline for SQL Editor Desktop App using Jenkins, Docker, Kubernetes, and WebDriver IO
- Worked with cloud platforms (AWS, Google Cloud) and monitoring tools (DataDog)
- Implemented multiplatform test frameworks including Playwright, Selenium, and WebDriver IO

Software DevOps Engineer Intern

Sept 2023 – Dec 2025

Teradata

- Migrated CI/CD pipelines from GitLab to GitHub Actions for improved automation
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Web Developer

Aug 2023 - Sep 2023

One Connection

- Automated HR system for call centers with cloud-based web app deployed on AWS
- Developed prediction models for optimal communication channels and collection days
- Implemented user response analytics to determine most effective outreach strategies

Selected Honors & Awards

ICPC World Finals [↗](#)

2024

Honorable Mention [↗](#)

Luxor, Egypt

ICPC Mexico

2023

3rd Place Nationally [↗](#)

Guadalajara, Mexico

Academic Talent Student Scholarship

2018 – 2021

1 st place over the Academic Aptitude Test [↗](#)

Cuernavaca, México

Gained a 60% scholarship for my superior education

BBVA Foundation Scholar

2015 – 2025

Top 50 National Winner of Children's Knowledge Olympics (OCI) [↗](#)

Mexico, City

Gained a Scholarship of more than \$15,000 USD, over 10 years

Contests & Competitions

Programming Competitions

ICPC World Finals

Apr 2024

Honorable Mention, ACM

- Represented Mexico at world finals, placed in top 2% of 50,000+ participants from 3,406 universities worldwide

ICPC Latin America Regional

Mar 2023

3rd Place, ACM

- Won 3rd place nationally with 1,000+ teams competition. Qualified for World Finals in Egypt

ICPC Gran Premio

Oct 2022

9th, ACM

- Qualified for nationals among more than 250 competing teams at national level

14th Donald Knuth Programming Contest

Sep 2022

3rd Place Women's Category, ESCOM-IPN

- Competitive Programming Contest Sponsored by OmegaUp and Meta (+30 participants)

Women in Programming Contest [↗](#)

Apr 2022

2nd, Omega Up

- Monthly programming competition for the Latin American region female students (+50 participants)

Mathematics Competitions

Euclid Mathematics Contest [↗](#)

Jan 2021

School Medal Champion, University of Waterloo

- Best student in school with above-global-average score (15,000+ participants)

National Mexican Mathematics Olympiad (OMM)

Nov 2019

Bronze Medal

- Bronze medal at national competition
- Shortlisted for European Girls' Mathematical Olympiad (EGMO)

ONMAPS & OMMEB

Jun 2017

Silver Medals

- National silver medals in mathematics competitions

ONMAPS (National Math Olympiad)

Nov 2015

Bronze Medal

- First national medal in mathematics olympiad held in Mexicali, Baja California

Olympiad of Children's Knowledge (OCI)

Mar 2015

1st Place State, Top 50 national

- Academic Contest organized by the Ministry of Education in Mexico. Allow me to meet the President Enrique Peña Nieto
- Awarded the BBVA Foundation Academic scholarship

Teaching & Mentorship

Teaching Assistant [↗](#)

Aug 2025 – Dec 2025

Universidad Nacional Autónoma de México (UNAM)

- Supporting Professor Enrique Francisco Soto Astorga in Theory of Computation (Group 7088), a foundational course covering formal languages, computational models, and the hierarchy of computation from finite automata to Turing machines.
- Conducted two weekly tutorial sessions for 38 undergraduate students.

Math Olympiad Coach and Tutor [↗](#)

2018 – Present

Mexican Mathematics Olympiad

- Trained over 300 students in mathematical problem-solving.
- Co-organized the Olympic-Mathematical Festival and an art raffle to fundraise for students.
- Four times Leader of the State Feminine Math Team at the Feminine National Mathematical Contest. Won the overall best team 4 four times.

Competitive Programming Tutor and Club Organizer – PU++

Aug 2022 – Jan 2023

Universidad Nacional Autónoma de México (UNAM)

- Taught foundational and advanced programming algorithms.
- Guided student teams that participated in the ICPC Grand Prix.
- Expanded team participation from 3 to over 10 teams.

Volunteer Math Trainer

December 2022

Mate Olimpiadas Oaxaqueñas

- Taught mathematics to children ages 10-14 for one week
- Prepared students for ONMAPS and OMMEB national competitions

Programming and Robotics Instructor

June 2020

Lebotics Team, Prepa Tec Campus Cuernavaca

- Taught free online programming courses to 25+ elementary and middle school students

Volunteer Educational Mentor

Jan 2018 – May 2018

Morelos Child Assistance Center (CAMI)

- Mentored Yeimi, a 6-year-old student, providing tutoring and educational activities twice per week for 4 months

Presentations & Public Engagement

Speaker

Panelist Participant

Oct 2025

International Conference on Philosophy of Computing [↗](#)

- Topic: "Philosophy of Computing Research Group as of 2025: What is the uncomputable?"
- First international conference covering cybernetic culture, technopolitics, gender and society in computing, and ethical problems in computing
- Featured magistral guests: Marcello D'Agostino (University of Milan), Mel Andrews (Carnegie Mellon University), and Sarah Abel (UNAM)

Panelist Participant

Mar 2025

Institutional Forum on Intellectual Property Law Reform

- Participated as part of the Philosophy of Computing Research Group
- Addressed intellectual property and industrial property law reform

Invited Speaker

Mar 2025

Day of the Girl and Women in Science, Secretaría de Educación

- Invited by the Secretary of Education for commemoration event

Panelist Participant

Mar 2025

Mexico's National Development Plan

- Participated in the Sovereignty and Humanities, Science, Technology and Innovation committee
- Contributed to national policy discussions organized by the Mexican Government

Staff Member & Organizer*Dec 2024***2nd Seminar on Philosophy of Computing** [🔗](#)

- Organized seminar hosted by Philosophy of Computing Research Group at UNAM

Presenter*Dec 2023***1st Seminar on Philosophy of Computing** [🔗](#)

- Presented: "The impossibility of compressing reality: a computational critique of the techno-scientific promise"

Presenter*May 2023***1st Colloquium on Philosophy of Computing**

- Presented: "Can we create AI for the good of humanity?"

Assited Congresses & Events**Technopolitics Congress***May 2025***National School of Anthropology and History (ENAH)**

- Explored ethical and social implications in relationship with technological developments

AWS Community Day*May 2025*

- Attended AWS community technology event

AI Summit*Apr 2025***IIMAS-UNAM, OpenAI, and Fintual**

- Attended summit on AI developments and applications

AWS Summit*Aug 2023*

- Attended AWS cloud computing summit

1st Science & Technology Congress [🔗](#)*Nov 2020***Red Mundial de Jóvenes Políticos del Estado de México**

- Participated in inaugural congress on science and technology

Leadership & Community Engagement**Founder, Doors - Student Group***August 2023 - Present*

- Organized three conferences for 100+ students on topics including Open Source projects, internships, women empowerment in STEM, mental health awareness, and multidisciplinary collaboration in computer science.

Member, Code Green - Student Group*Sep 2024 - Jan 2025*

- Multidisciplinary student initiative applying AI to climate change problems in southern Mexico.
- Developed collaborative research on environmental impacts and AI-based mitigation strategies.

Co-founder – Kits4Children*Feb 2020 - Jun 2020*

- Provided remote tutoring and educational kits to children affected by the COVID-19 pandemic.
- Partnered with 'Einstein Ki Duniya' to offer free STEM education courses globally.

Global Programs & Other Educational Experiences**Harvard Aspire Leaders Program** [🔗](#)*Oct 2025***Aspire Institute - Harvard Business School**

- Selected as one of 9,362 finalists from 45,000+ students worldwide
- Leadership development program focused on global impact and social change

Geometric Intelligence Workshop*Apr 2025***UNAM Mathematics Institute & UC Santa Barbara**

- 1st Place Hackathon
- Explored Topological Deep Learning, Graph Neural Networks (GNNs), and geometric analysis using Geomstats
- Developed graph neural network to predict ADHD diagnoses in women using limited medical data

Competitive Programming Training Camp [↗](#)

Jul 2024

Universidad Nacional de Rosario, Argentina

- Two-week intensive competitive programming bootcamp
- Daily ICPC-style competitions and advanced algorithmic techniques

Summer School in Quantum Computing

Aug 2023

Universidad Nacional Autónoma de México (UNAM)

- Completed quantum computing educational program

Competitive Programming Training Camp

Jan 2023

Tecnológico de Monterrey, Guadalajara

- 2nd Place, Mexico
- Two-week intensive competitive programming bootcamp
- Daily ICPC-style competitions - finished 2nd place

1000 Girls 1000 Futures [↗](#)

May 2021 – May 2022

New York Academy of Sciences (NYAS)

- International STEM mentorship program (10% acceptance rate)
- Connected with mentors and peers worldwide focused on STEM careers
- Co-founded Kits4Children NGO through program connections

Software Projects

Impulsa tu Futuro (Power your future)

2025

Software Engineering

[GitHub Repo](#) [↗](#)

- Developed a full-stack web platform to share and track applications for internships, scholarships, and hackathons, featuring personalized recommendations, user profiles, notifications, and collaborative tools.

Tools: Django, React, PostgreSQL

Geometric Figure Identifier

2023

Computational geometry

[Github Repo](#) [↗](#)

- Built an image-processing tool that identifies geometric figures in white-background images using contour detection and centroid calculation. Implemented distance-based algorithms to determine vertex counts and classify shapes; visualized results with Matplotlib.

Tools: OpenCV, Python.

Publications & Writing

Writer and Editor (In progress)

2025

Book of Proceedings, International Conference on Philosophy of Computing

- Contributing author to the proceedings volume from the first international conference
- Expanding conference paper into full article on computational critiques and AI ethics
- Editorial work on proceedings publication

Editor and Translator

Aug 2019 – Feb 2020

Agua Simple Magazine, Mexican Institute of Water Technology (IMTA)

- Translated articles to English, German, and easy-reading formats for accessibility
- Digital magazine focused on water conservation and environmental education for ages 13-17
- Presented editorial work at the International Book Fair (FIL Minería), Mexico City
- Contributed to making scientific content accessible to diverse audiences including people with disabilities

Certifications & Courses

- Project Management Fundamentals, Google Career Certificate (2022)
- Foundations: Data, Data, Everywhere, Google Career Certificate (2022)
- Google Cloud Inroads Courses (2023)

- "Bottom-Up Synthesis Methods" and "Nanoscience and Nanotechnology: Introduction to the Nanoworld", [Nanotechnology Applied Institute](#) [🔗](#) (2020)

Technologies

Programming Languages: Python (4 yrs), Java(3 yrs), Javascript(2 years), C++ (3 yrs), Go (1 yr), Lean(1 yr), Rust (1 yr).

Others: Linux, Bash, Docker, Jenkins, YAML, PostgreSQL, OOP (Object Oriented Programming), GitHub Actions, Kubernetes, Node.js, Figma.

Languages

Spanish(Native)

English (B2 - Intermediate Advance)

German (A2 - Elementary)