

Montserrat Benavides

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Education

UC Chile, School of Engineering
Bachelor of Computer Science

Mar 2023 – Present

Work Experience

Ambassador for the Bachelor of Computer Science Program

Oct 2023 – Present

Computer Science Department, UC Chile

- Represented the Computer Science department at university fairs and events
- Explained the Computer Science program and university life to hundreds of prospective students and families

Machine Learning Summer Intern

Jan 2025 – Mar 2025

Ingevec

- Developed automated document signature verification system using Google Document AI OCR technology
- Engineered comprehensive data pipeline: collecting, labeling, and preprocessing raw documents to create high-quality training datasets
- Designed and implemented three-model OCR architecture to classify documents, locate signatures, and detect missing signatures with 80% precision
- Proposed architectural enhancements by integrating a CNN-based model to replace one OCR component, aiming to boost signature detection accuracy
- Delivered comprehensive proof-of-concept demonstrating AI's potential for automating compliance verification, significantly reducing manual review requirement

Undergraduate Research Assistant

Aug 2023 – Dec 2024

Human and Process Research Lab, UC Chile

- Researched object-centric process mining applications in medical education, an innovative approach to process analysis
- Transformed traditional process data into object-centric formats using SQL queries for Celonis software
- Analyzed data models to evaluate the comparative advantages of object-centric over traditional process mining methodologies in medical education

Teaching Experience

Teaching Assistant - Computational Thinking and Digital Skills

Mar 2025 – Present

Computer Science Department, UC Chile

- Lead weekly practical sessions and provide mentorship to first-year Computer Science students
- Support students through personalized guidance and develop supplementary learning materials
- Apply improved teaching methodologies based on previous course experience

Teaching Assistant - Multiple Courses

Mar 2024 – Jul 2024

DComputer Science Department, UC Chile

- Led classroom activities and provided one-on-one support in Computational Thinking and Digital Skills
- Evaluated and provided detailed feedback on student assignments in Advanced Programming
- Earned outstanding evaluations from faculty

Projects

LICCoursePlanner

Jul 2024 – Present

- Created an interactive academic planning tool for Computer Science students, streamlining course selection and

degree progression tracking

- Independently developed the application using Vanilla JavaScript with focus on performance and user experience
- Transformed a personal project into an Open Source collaborative tool now actively used by Computer Science students across the university

Conecta

Mar 2024 – Jul 2024

- Developed a full-stack social platform in Ruby on Rails to facilitate event organization and community building
- Implemented comprehensive features including user authentication, profile management, group functionality, review systems, and real-time group chat
- Applied software engineering best practices including MVC architecture, database optimization, and responsive design principles

Volunteering

Co-leader

Jul 2024 – Mar 2025

AI Safety Initiative UC

- Organized a red teaming/prompt engineering event with over 60 attendees to promote awareness of AI Safety
- Assisted in the diffusion of our introductory AI Safety course leading to over 30 applications
- Led a cohort of 6 students in the same course

Tutor

Mar 2024 – Dec 2024

Cuerpo de Tutores Ingeniería UC

- Guided and mentored a group of 11 first-year Computer Science students
- Provided mentorship, academic support, and accompaniment to facilitate their adaptation to university life

Coordinator of Design and Outreach Area

Mar 2023 – Jul 2024

CPU UC

- Designed graphic materials and outreach strategies to promote the initiative, which focuses on repairing unused computers and donating them to vulnerable communities
- Supported the visual communication of the project to increase its reach and raise awareness about reducing the digital divide

Mentor

Mar 2023 – Aug 2023

Technovation Girls Chile

- Supervised and provided support in the development and conceptualization of Educatin, an AI-driven application designed to reduce the educational gap among students in Chile

Conferences and Co-curricular Activities

KHIPU: Latin American Meeting in Artificial Intelligence

Mar 2025

Selected Conference Attendee

- Selected attendee (~20% acceptance rate, over 900 applications)
- Was one of the ~17% undergraduate attendees, among primarily graduate and professional participants

EA Global Boston

Nov 2024

Conference Attendee & Volunteer

- Received a full funding grant to attend the conference
- Attended multiple talks with leading experts and entrepreneurs to explore scalable innovative solutions for pressing issues like AI safety, global health, and long-term societal well-being
- Volunteered for the Logistics Team

ML4Good Brazil

Jul 2024

10-day AI Safety Bootcamp

- Gained hands-on experience with Neural Networks, Transformer Architecture, and Reinforcement Learning using PyTorch

- Acquired practical AI safety principles and community building methods currently being applied in leadership role at AI Safety Initiative UC

Skills

Programming Languages: JavaScript, Ruby, Python, SQL

Technologies & Frameworks: Ruby on Rails, PyTorch, Celonis, Google Document AI

Design and Frontend: Adobe Photoshop, Figma

Other: Process Mining, Web Development, Open Source, Event Organization, Technical Mentorship

Language Proficiency

Spoken: English – fluent; Spanish – native

Written: English – fluent; Spanish – native