# Victoria Rossi

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#### **EDUCATION**

## University of Illinois at Chicago - Chicago, IL

B.S in Computer Science

Aug 2023 - Dec 2025 (Expected)

GPA: 4.0

Relevant Coursework: Natural Language Processing, Machine Learning, Computability and

Complexity Theory, Software Engineering

#### RESEARCH EXPERIENCE

**Department of Computer Science, University of Illinois at Chicago – Chicago, IL** Aug 2025 - Present Researched empathy and sentiment expression in Spanish through primary sources. Collected and standardized multiple annotated sentiment datasets from Hugging Face, X, and travel and movie reviews. Fine-tuned BERT to test classification performance on a five-point scale (from 'Very Negative' to 'Very Positive'.) The goal was to identify a reliable dataset or demonstrate the insufficiency of existing Spanish resources, motivating the development of an improved sentiment dataset.

## College of Engineering, University of Illinois at Chicago – Chicago, IL

Jun 2025 - Present

Compiled and analyzed data from UIC's K-12 summer engineering camps (2022–2025) to identify trends in student return rates and factors influencing continued participation. I also designed questionnaires for quality control and pre-camp and post-camp comparisons, surveying what students enjoyed or would have liked to see, which will be a part of the next iteration. These questionnaires are approved by the IRB and will continue to be used after I leave.

# TEACHING AND MENTORING EXPERIENCE, UIC

## **CS 301 - Languages and Automata**

Head TA (Spring 2024, Fall 2024, Spring 2025, Summer 2025)

~ 300 students

This course is the second installment of the theory branch in UIC's curriculum, and does not include programming assignments. I was the TA four times, in which I oversaw 10-15 TAs and guest lectured on multiple occasions. I instructed lab, midterm, and final exam review sessions. I authored new lab problem sets, homeworks, and participated in exam design. I presented these materials to my TAs during meetings that I hosted each week. I also designed major overhauls to rubrics for each of the aforementioned, and maintained the autograders for each.

## CS 107 - Introduction to Computing and Programming in C

Undergraduate TA (Fall 2024)

~ 200 students

This course is taught to all engineering majors excluding Computer Science. I guest lectured twice: recursion in C and object-oriented programming. I held lab sections every week and created lab assignments in C along with their corresponding autograders. I helped design exams and study guides, where I also graded and proctored them.

## CS 141 - Program Design I

Undergraduate TA (Summer 2025)

~ 25 students

This course includes introductory data abstraction and modular design; recursion; lists and stacks; dynamic memory allocation; file manipulation; programming exercises. I held weekly labs which consisted in a review session and a quiz. I managed groups projects by meeting bi-weekly to monitor progress. I evaluated the groups through a "technical interview" style of questions which I piloted for the first time in this course.

### CS 341 - Programming Language Design and Implement

Undergraduate TA (Fall 2025)

~ 310 students

This course teaches different programming paradigms using Python, SQL, F#, and Go. I guest lectured on introductory Go programming and assisted in organizing a new exam environment which consisted of hybrid exams.

#### **WiCS Aspire to Inspire Mentorship Program**

Mentored freshman and sophomore Computer Science students to ease their transition into job application season. Provided guidance on course selection and academic planning, assisted in designing a personal portfolio, CV/resume, and identified research opportunities and pursuing personal projects. Offered interview preparation (mock technical interviews) and career development support.

#### **Guest Lectures**

CS 107 - Recursion in C, 200 students

CS 107 - Object-oriented Programming, 200 students

CS 141 - Review Sessions, 24 students

CS 301 - Context-Free Grammars, 300 students

CS 301 - Chomsky-Normal Form, 300 students

CS 301 - Midterm and Final Exam Review Sessions, 50 students

CS 341 - Introduction to Go, 310 students

## Other TA experience

Engineering Summer Camp (Summer 2025) ~ 150 students

#### PROFESSIONAL EXPERIENCE

## **Machine Learning Intern - Illinois Department of Transportation**

Apr 2024 - May 2024

I leveraged various LLMs to summarize and enhance weather reports, improving content clarity and accessibility. To ensure the most effective solution, I tested different models, selecting the one that best enhanced user engagement. Additionally, I made an estimation of cost per token and API accessibility to propose a model recommendation tailored to the use case.

### TECHNICAL SKILLS

Python, BERT transformers, TensorFlow, Java, C++, SQL, React, JavaScript, HTML, CSS, GitHub, Linux/Bash, LaTeX, Jira, Google Cloud, Anthropic/OpenAI/Ollama APIs

#### LANGUAGES

Spanish: Native English: Fluent