

# Nixon Ronel Zuniga Jara

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## Education

**Cornell University | College of Arts & Sciences** Ithaca, NY  
*Bachelor of Arts in Computer Science, Minor in Entrepreneurship | GPA 3.5 | HSF Scholar* **Expected May 2025**

**Binghamton University, SUNY | Thomas J. Watson College of Engineering and Applied Sciences** Binghamton, NY  
*Bachelor of Science in Computer Science | GPA 3.8 | Dean's List: Fall 2021 & Spring 2022* August 2021 – May 2022

**Related Courses:** Algorithms, Object-Oriented Program, Functional Program, Data Structures, Data-Driven Web Applications, Computer Vision, Machine Learning, Multivariable Calculus, Linear Algebra, Discrete Math, Probability & Statistics

## Technical Skills

**Languages:** Python, Java, Javascript, HTML/CSS, C/C++, OCaml, SQL & ASM

**Developer Tools:** GitHub, VS Code, Eclipse, Terminal, Powershell, AWS, Jupyter Notebook, Anaconda, PyTorch, GIS

## Project Experience

**Rizzbot** | *Functional Programming & Data Structures* September 2023 - December 2023

- Revamped **PyTorch integration into OCaml**, cutting development time by 20%, and harmonizing dynamic neural network models with functional programming paradigms
- Engineered an **RNN model** for time-series prediction, achieving a 20% boost in computational efficiency compared to baseline implementations

**FIFA in D3!** | *Data-Driven Web Applications* November 2023

- Developed an interactive data visualization project using **D3.js** to display over **70,000 FIFA soccer player data** on a map, visualize player statistics through a scatter plot, and filter player information based on user-selected criteria
- Applied front-end development skills, including **HTML, CSS, and JavaScript**, to fetch and manipulate data, create responsive user interfaces, and enhance the user experience

**McDiver** | *Object-Oriented Programming & Data Structures* May 2023

- Optimized dungeon exploration with **Dijkstra's algorithm** for treasure route collection efficiency for maximum results
- Enhanced Java-based **concurrent** programming, improving system performance by 60% for seamless parallel task execution. Implemented **multithreading** to optimize efficiency and task management

**Asteroids** | *Computing using Python* December 2022

- Utilized **Python's Object-Oriented Programming** principles to design and implement game entities for "Planetoids"
- Demonstrated proficiency in collision detection, game physics, and vector math to create realistic gameplay experiences

## Professional Experience

**Course Consultant** January 2024 – Present  
*CS 1112: Intro to Computing: An Engineering & Science Perspective, Cornell University* Ithaca, NY

- Facilitated office hours for over **400 students** who needed assistance with homeworks, labs, and projects
- Help around **50 students every week** with understanding abstract computer science concepts

**Nunzio & Sons Tile & Stone Corporation** May 2022 – August 2022  
*Computer-Aided Design Intern* Yaphank, NY

- Programmed machines using **AutoCAD** for stone and tile manufacturing in high-end commercial/residential projects, achieving a **20% increase in production** efficiency
- Spearheaded the integration of AutoCAD into construction projects through collaboration with two programmers, and serving as a **Spanish translator** for a non-English-speaking programmer

## Extracurricular Activities

**Sabor Latin Dance Ensemble** September 2022 – Present  
*Treasurer* Ithaca, NY

- Allocated a two-semester **\$15,000 budget** into resources and events by transforming e-board plans and goals into financial models, examining feasibility, and consistently tracking club expenses to optimize club for our annual concert

**Taekwondo** September 2021 – Present  
*First C-Team | Sub-Team Trainer* Ithaca, NY

- Trained in sparring and poomsae for Cornell's C-Team and Binghamton's Club Team through vigorous training
- Placed **1<sup>st</sup>** in sparring at **MIT, Cornell, Brown, and Princeton's** Taekwondo Tournament