

# CESAR BATREZ-DELATORRE

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## EDUCATION

### Syracuse University

- Bachelor of Science in Computer Science & Mathematics

### Noble Street College Prep

- High-School Diploma

Syracuse, NY U.S.A.

Expected Graduation, May 2028

Chicago, IL U.S.A.

June 2024

## TECHNICAL SKILLS

**Languages & Tools:** Google Apps Script | Haskell | HTML/CSS | Java | JavaScript | Python | SQL

**Libraries & Frameworks:** Matplotlib | NetworkX | NumPy | Pandas | Scikit-Learn | TensorFlow

**Concepts:** Data Structures | Graph Theory | Machine Learning | Data Visualization

## WORK EXPERIENCE

### Syracuse University

*AEW Facilitator*

August 2025 - Present

Chicago, IL

- Lead collaborative workshops for MAT 295: Calculus I to reinforce core concepts and problem-solving skills
- Design and facilitate interactive learning activities that promote student engagement and academic success

### Lavner Education

*Technology Instructor*

May 2025 - August 2025

Chicago, IL

- Instructing over 30 middle and high school students in beginner to intermediate programming courses across multiple weekly sessions
- Designing over 20 interactive coding exercises using Python and JavaScript to reinforce key programming concepts and promote problem-solving skills

### Chicago Field Museum

*Visitor Services*

February 2024 - August 2024

Chicago, IL

- Provided courteous and empathetic customer service, assisting 4,000+ daily visitors with inquiries and guiding through museum when needed
- Enhanced communication and interpersonal skills by welcoming guests, managing queues efficiently, and supporting cashiers during peak hours

### Chicago Architecture Center

*Student Fellow*

June 2023 - November 2023

Chicago, IL

- Gained proficiency in architectural design software, including Rhino 7, Grasshopper, and AutoCAD, while honing physical skills such as lettering, sketching, and model making
- Collaborated with Just Roots Chicago to conceptualize and design a theoretical community center, integrating innovative ideas to consign community needs

## RESEARCH EXPERIENCE

### Syracuse University: SOURCE Explore

*Undergraduate Researcher*

January 2025 - April 2025

Syracuse, NY

- Conducted research on campus transit systems using Graph Theory and Dijkstra's Algorithm to evaluate route efficiency across 15+ shuttle stops and over 40 unique routes; identifying potential time savings of up to 27% through optimal rerouting
- Designed and implemented a graph-based model of Syracuse University's 36-stop shuttle system in Python using NetworkX, and created custom software to calculate shortest paths and optimize routing using Dijkstra's Algorithm
- Presented findings via professional research poster at the SOURCE Explore 2025 Symposium

## PROJECTS

### Video Game Data Analysis | Python, Matplotlib, Pandas

- Conducted an in-depth analysis using Python and its libraries (Pandas, Matplotlib) to examine the impact of players' sobriety levels on their average match performance statistics
- Explored additional insights, such as identifying the most popular game modes, through data analysis and visualization
- Utilized Matplotlib to create visual representations of key statistics, showcasing variations across different video game modes

### Interactive Portfolio Website | HTML, CSS, JavaScript, Apps script

- Developed an interactive portfolio website using HTML, CSS, JavaScript, and Google Apps Script to showcase completed projects
- Enhanced user experience by integrating smooth navigation features and interactive elements, ensuring an engaging and intuitive browsing experience

## CERTIFICATIONS & HONORS

**Renee Crown Honors Program, Syracuse University**

**Catalyst Scholar, Syracuse University**

**Free Code Camp Data Analysis Certification**

**Global Seal Of Biliteracy (Spanish)**

May 2025 - Present

January 2025 - Present

December 2024

June 2024