

Nicole Sin

Brooklyn, NY

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EDUCATION

Cornell University, College of Arts and Science

Ithaca, New York

Bachelor of Arts in Computer Science & Mathematics

August 2022 – June 2026

- **GPA:** 3.5 / 4.0 | **Honors:** Dean's List Fall 2022 – Spring 2024
- **Relevant Coursework:** Networks, Algorithms, Object-Oriented Programming, Functional Programming, Intro to Machine learning, Introduction to Python, Discrete Math, Statistics, Backend Development

PROFESSIONAL EXPERIENCE

Bank of America

New York, NY

Software Engineering Intern · Erica Voice Chat and Technology

June 2024 – August 2024

- SpendTracker: Developed and optimized endpoints using Flask to efficiently retrieve user credit card data and categorize user purchases, improving response times by approximately 20% across all queries.
- Implemented indexed searches and refined query execution plans in Trino/Stargate, reducing data fetching time by ~15%. Leveraged Trino Python client to format SQL query results from Oracle Exadata into JSON.
- Innovation Challenge Honorable Mention: Family banking account integration with Erica Chat Assistant.

OnePointFive

New York, NY

Data Science Associate · Operations

June 2023 – September 2023

- Sustainability Article Generator: Developed an end-to-end, content-based article recommendation engine, leveraging Pandas, Scikit-learn libraries, and CountVectorizer to get similarity score and recommendations.
- Funnel Analysis: Designed a detailed sales funnel analysis and developed a visual Sankey diagram that visualized customer retention, resulting in a 40% improvement by pinpointing key drop-off areas.

Cornell Tech

New York, NY

Software Engineering Summer Intern · FarLabs

June 2023 – August 2023

- TrashBot: Collaborated on deploying 2 remote trash robots (covered by FOX and Spectrum News), initiating a Wizard of Oz study to explore human-robot interaction in a video-coded dataset analyzed YOLOv5.
- MiniBot: Leveraged ROS2 to program Minibot functionality, a scaled-down Trashbot model. Orchestrated live data retrieval from an ESP-32CAM, managing linear and angular velocities for optimal performance.

Medgar Evers College

Brooklyn, NY

Software Engineering Intern · SEO Team

January 2023 – May 2023

- Search Engine Optimization: Implemented meta tags and keyword optimization in website content, enhancing visibility and search engine ranking over 25%; improved organic website traffic through link building.
- UX redesign: Spearheaded a redesign of Medgar Evers website, using Figma to improve UX and increase responsiveness, and translated high-fidelity designs into a functional website to be deployed in Spring 2024.

NOTEWORTHY

Cornell Electric Vehicles · Autonomy Subteam

Ithaca, NY

Python, ROS2, YOLOv5

June 2023 - Present

- Optimized A* and RRT* algorithms for efficient path planning in autonomous vehicle navigation, utilizing the CARLA simulator for testing. Helped transition software pipeline to ROS2 publish-subscribe architecture.

Jane Street Insight · Software Engineering Track

Ithaca, NY

Python, OCaml, AWS EC2

August 19th - 23rd 2024

- Fine-tuned a basic trading bot to make more profitable trades in the Electronic Trading Challenge(ETC)

PROGRAMMING SKILLS

Languages/Systems: Python, SQL, Java, HTML/CSS, JavaScript, R, Powershell, Unix, Linux

Development Tools/Frameworks: Flask, Git/Github, Figma, PostgreSQL, Postman, Pytorch, AWS EC2, Spring

Libraries: Pandas, NumPy, Scikit-learn, Trino Python client, R: ggplot, tidyr, janitor, googleVis