

Melody Nguyen

melodyxnguyen@gmail.com | (669) 240-9976 | [LinkedIn](#) | [Portfolio](#) | [GitHub](#)

TECHNICAL SKILLS

Programming: Python (NumPy, Pandas, Scikit-learn, SciPy, pyFAI, fabio), Java, C, R, SQL, JavaScript

Research Areas: Machine Learning, Data Science, Optimization, Human-Computer Interaction, Computer Vision

Web & Tools: HTML, CSS, React, Tableau, Git, GitHub, Excel, Google Analytics

Certifications: United Nations Millennium Fellowship, Python Institute Programming

RESEARCH & PROFESSIONAL EXPERIENCE

Student Researcher – Machine Learning & Autonomous Experiments Jun 2025 – Present
Stanford Synchrotron Radiation Lightsource (SSRL), SLAC National Accelerator Laboratory *Stanford, CA*

- Designed Python pipelines to automate powder diffraction experiments, reducing scanning time by 30%.
- Implemented peak detection, classification, and decision tree models to analyze structural transitions in TiO₂.
- Integrated temperature metadata into autonomous workflows to optimize beamline performance.

Product Ambassador – Reproducible Computing Sep 2024 – Present
Marimo.io (Stanford-hosted) *Remote, New York, NY*

- Published research blogs on interactive data visualization and reproducible Python notebooks.
- Collaborated with developers to design educational demos advancing human-computer interaction in data science.

Data Science Intern – Renewable Energy Systems Jun 2024 – Aug 2024
SLAC National Accelerator Laboratory, U.S. Department of Energy *Stanford, CA*

- Analyzed 60+ photovoltaic datasets to improve predictive models for grid resilience under extreme weather.
- Built visualizations of heatwaves and anomalies using Pandas, NumPy, and Matplotlib for DOE reports.

Business Development Intern – Energy Technology Mar 2023 – Jun 2024
SLAC National Accelerator Laboratory *Stanford, CA*

- Redesigned 5+ user interfaces for simulation platforms and supported research adoption by utilities.
- Created user guides that reduced onboarding time and promoted sustainable technology adoption.

EDUCATION

Pace University, Seidenberg School of Computer Science New York, NY
Bachelor of Arts in Computer Science, Minor in Business *Expected 05/2026*

- GPA: 3.81 — Dean's List — Honors College
- Relevant Coursework: Data Science (Python & R), Data Structures & Algorithms, Machine Learning Math, Computer Organization, SQL, Business Analytics

INITIATIVES & IMPACT

Institute for Operations Research and Management Science Feb 2023 - Present
President at Pace University

- Taught over 200 college students Python, R, SQL, Tableau, Excel with interactive workshops and competitions
- Awarded "Organization of the Year" for tripling attendance, events, and growing media presence to 700+ followers

United Nations Millennium Fellowship Jan 2021 – Present
Founder, President, and Campus Director

- Led 15 sustainable development projects and introduced Malala Yousafzai at graduation for 3,000 fellows
- Mentored 20+ students in STEM careers through leadership panels, civic engagement, and education programs
- Organized donation drives for NYC migrant families and raised \$300 for the Malala Fund

Wall Street Journal Case Study Sep 2022 – Apr 2023
Marketing Analyst — MySQL, Microsoft Excel

- Conducted SWOT analysis and consumer research for a 3-year marketing strategy to increase retention rates
- Proposed customer membership renewal through revamped platforms and alumni-targeted promotions