Melody Nguyen

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PROFILE

Data scientist and research technologist with experience in machine learning, scientific computing, and energy analytics. Skilled in Python, modeling, data visualization, and automation. I've applied data to solve climate, grid intelligence, and AI-sustainability challenges.

EDUCATION

Pace University, Seidenberg School of Computer Science and Information Systems — New York, NY
BA in Computer Science | Minor: Business | Dean's List |GPA: 3.81 — May 2026
Honors Thesis: Digital Pollution, Understanding Energy Costs of Large Language Models

RELEVANT COURSEWORK

Machine Learning | Data Science with Python & R | Algorithms | Data Structures
Research Methods | Environmental Science | Mathematical Structures

TECHNICAL SKILLS

Programming Languages: Python, SQL, R, Java, C
Data Visualization Tools: Marimo • Jupyter • Tableau • Excel • Git
Libraries: Pandas • NumPy • SciPy • Scikit-learn • Matplotlib • Seaborn
Machine Learning Algorithms: Regression • Classification • Time-series • Peak Detection
Certifications: NVIDIA Deep Learning • Lubin Analytics

PROFESSIONAL EXPERIENCE

Engineering Intern — Stanford, CA
Stanford Synchrotron Radiation Lightsource (SSRL) — *June 2025 – August 2025*
- Automated scientific workflows → improved throughput 3×
- Translated user needs into technical specs for data tools
- Partnered with researchers to validate product functionality

Data Science Intern — Stanford, CA
SLAC National Accelerator Laboratory, U.S. Dept. of Energy — *Jun 2024 – Aug 2024*
- Analyzed 60+ solar PV sites using NREL + NOAA datasets
- Modeled extreme weather impact on renewable energy output
- Built heatmaps + geospatial trend visualizations for resilience studies

Product Ambassador — New York, NY
marimo.io — *Sep 2024 – Dec 2024*
- Developed interactive analytical notebooks for reproducible workflows
- Published ML + visualization tutorials for research audiences

Website Developer & Data Analyst — Stanford, CA
SLAC National Accelerator Laboratory, Applied Energy Division — *March 2023 – June 2024*
- Built dashboards for platform usage and DOE analytics
- Increased user adoption through data-driven UI content
- Used analytics to guide product improvements and marketing

PROJECTS & RESEARCH

Autonomous DIF Experimentation Logic — *June – Aug 2025*
- Designed ML-based peak scanning + automated phase detection
- Improved experiment efficiency across high-temperature diffraction cycles

Extreme Weather + Solar Performance Modeling — Python — *June – Aug 2024*
- Merged NOAA + NREL datasets to quantify grid stress events

- Visualized cross-regional performance losses during heatwaves

Arras Energy Website — *HTML, CSS, Markdown, Jekyll, Google Analytics* *June – Aug 2023*

- Released grid-simulation platform for renewable energy modeling
- Enabled researchers, regulators & planners to access open-data tools
- Supported climate resilience projects at SLAC

Wall Street Journal Case Study — *MySQL, Tableau, Excel, Canva* *Sept – Dec 2022*

- Built datasets + segmentation strategy using SQL + Excel
- Conducted statistical consumer analysis to improve retention
- Presented insights to AMA — received Honorable Mention

LEADERSHIP

Institute of Operations Research and Management Sciences, President Feburary 2023 – Present

- Taught 300+ students: Python, R, SQL, Tableau, Excel
- Hosted Microsoft & Amazon speakers. Awarded Organization of the Year

United Nations Academic Impact, Campus Director & Millennium Fellow Feburary 2023 – Present

- Introduced Nobel laureate Malala Yousafzai at 2023 ceremony
- Led 15-student tech cohort advancing UN SDG projects

Google Developer Groups, Marketing Lead July 2025 – Present

- Increased workshop RSVPs by 200% through targeted engagement

AWARDS

- National Science Foundation SuperComputing 2024 Fellow
- NVIDIA Deep Learning Certificate
- Pforzheimer Honors Scholar, Principal's Leadership Award