Teresa Nguyen

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Education

Yale University New Haven, CT

B.S. Computer Science & B.A. Mechanical Engineering GPA: 3.84/4.0 *Aug. 2023 – May 2027*

- **Key Coursework**: Data Structures, Algorithms, Object-Oriented Programming, Computer Vision, Advanced C++, Linear Algebra, Discrete Mathematics, Multivariate Statistics, Data Analysis, Full Stack Development
- **Activities**: CodePath, Board Member: Society of Women Engineers, Leader: CS Orientation Program

Technical Skills

Languages: Python, Java, C++, JavaScript/TypeScript, SQL, R, HTML/CSS
Frameworks & Libraries: React, Node.js, Angular, MongoDB, Firebase
Tools & Platforms: Git, UNIX/Linux, Jira, VS Code

Experience

Faboratory | Wearable Robotics New Haven, CT

Software / ML Engineer Intern *May 2025 – Present*

- Designed and trained **machine learning models** to generate synthetic datasets, expanding training data by 300% and cutting manual collection time by 40%. Building a full-stack app for data cleaning, simulation, and ML.
- Developed robust **Sim2Real** and **Real2Sim** pipelines using **Genesis**, boosting robotic control policy stability by 25% across real and simulated environments. Collaborating with UPenn on toddler-assistive wearable robotics.
- Integrated Arduino-based stretchable sensor prototypes for collecting capacitance data for ML

Medtronic North Haven, CT

Surgical Robotics Software Engineer Intern / Co-Op *Jun. 2024 – Dec. 2024*

- Built a chatbot prototype for the Medtronic surgical robot using **Large Language Models (LLMs)**
- Developed and optimized backend for a surgical robot log analysis tool in **Python** and **JavaScript**, improving data processing speed by 18%
- Automated dashboards with **REST APIs**, **SQL**, and **Power BI**, eliminating 100+ hours of manual reporting and accelerating issue triage
- Produced a 20+ page software validation document to ensure compliance and support deployment of the log analysis tool

Goldman Sachs Dallas, TX

Emerging Leaders Program — Software Engineering *Oct. 2024 – May 2025*

- Developed and deployed a full-stack application using **Java**, **Node.js**, **Angular**, and **REST APIs** to support financial data processing and visualization
- Led a Scrum team of six as both product manager and front-end engineer, driving sprint planning, feature development, and deployment

Yale School of Engineering & Applied Science New Haven, CT

Teaching Assistant | Computing for Engineers and Scientists & Python Information Systems *Sep. 2024 – Present*

- Mentored and provided technical guidance to 100+ students in **C**, **C++**, and **MATLAB**, covering topics such as **object-oriented programming**, **memory management**, and **algorithm optimization**
- Led review sessions, developed supplemental learning materials, and graded assignments/exams to reinforce concepts in **Python**, data structures, **SQL**, recursion, and UNIX

Projects

That Time You Killed Me | GitHub | *Python, Tinker, OOP Design* Mar. 2025 – Present

- Built a Python CLI game engine with multi-era boards, AI opponents, undo/redo, and modular design patterns

Mutual Funds Dashboard | GitHub | *Node.js, Angular, Java, REST API* Dec. 2024 – Jan. 2025

- Full-stack mutual funds application for Goldman Sachs that projects potential returns on money

The Tales of Detective Toasty | GitHub | *Canva, Python, OpenAPI*

- Developed an interactive mystery visual novel using **Python** and AI character interaction. Won 3rd at YHack.