Selina Cheng

Research Interests: Multimodal AI, Embodied AI, Spatial Reasoning, Computer Vision, Robotics

selinajcheng@gmail.com ◇ selina.cheng@macaulay.cuny.edu ◇ (929)919-7905
selinajcheng.github.io ◇ github/selinajcheng ◇ linkedin/in/selinajcheng

Education

Macaulay Honors College at CUNY Hunter College — New York, New York
B.A. in Computer Science (Honors), Statistics *(Minor in Linguistics)* — *August 2023 - Present*

- **Cumulative GPA:** 3.66
- **Expected Graduation:** May 2027
- **Relevant Coursework:** AI; ML, Calculus 3; Linear Algebra; Bayesian Statistics; Brains, Minds, and Machines

Research and Work Experience

Cornell Tech, Cornell University — New York, New York
Student Researcher (advised by Professor Yoav Artzi and Anne Wu) — *May 2025 - Present*

- Developing novel benchmark inspired by cognitive psychology research to evaluate the spatial reasoning abilities of multi-modal large-language models (MLLMs)
- Created a full-stack web platform to conduct human studies and collect human performance baseline (code, demo)
- Implemented an end-to-end pipeline to automate MLLM experimentation, from synthetic data creation, using programmatically generated 3D scenes in Blender, to results generation, automating inference and evaluation for both commercial (e.g., Gemini, ChatGPT) and open-source (e.g., InternLM, Qwen, DeepSeek) models

MIT Quantitative Methods Workshop Program — Cambridge, Massachusetts
Workshop Participant — *Jan 2025*

- Applied ML models (PCA, K-Means Clustering, Linear Regression) in Python to analyze and extract patterns from high-dimensional neuroscience datasets
- Developed Bayesian statistical models and applied deep learning to differential gene expression analysis and protein structure prediction

New York Hall of Science — New York, New York
Science Education Facilitator — *Jun 2024 - May 2025*

- Performed on-stage science demonstrations for audiences of 50+ visitors every shift and facilitated hands-on exhibits

CUNY Hunter College — New York, New York
AI Robotics Research Intern — *Jul 2024 - Aug 2024*

- Researched and proposed an AI product prototype with RGB-D sensors and SLAM for the visually impaired

Presentations

Can Vision-Language Models Do Symbol Grounding and Spatial Reasoning in Map Tasks?
CUNY Honors Connect at Cornell Tech Symposium 2025 - Talk and Poster (slides, poster)

Technical Skills

AI / Data Science:	PyTorch, HuggingFace Transformers, Gemini API, scikit-learn, NumPy, pandas, matplotlib, seaborn, SciPy, PyMC, ArviZ, Pillow
Languages:	Python, C++, Java, TypeScript, JavaScript, SQL (PostgreSQL), HTML/CSS
Tools / Frameworks:	Git, GitHub, Linux, Next.js, Vercel, Blender (Python API)

Honors and Awards

Hunter College Dean's List — *Aug 2023 - Present*
The John P. McNulty Scholars Program for Leadership in Science & Mathematics — *Apr 2025*
Daedalus Honors Computer Science Scholars Program — *Aug 2023*
Full-Tuition Merit Scholarship at Macaulay Honors College — *Aug 2023*