GRACE LI

+1 (858) 250 9015 ggracelii.com
grace.li2@columbia.edu New York, NY, USA

Education

Columbia University – New York, NY **Graduating May 2028**
Double Major: Computer Science & Mathematics | Minor: Dance Major GPA: 3.98/4

- **Coursework:** Advanced SWE, AI, Advanced Programming, Data Structures & Algorithms, Computational Linguistics, Discrete Math, Modern Algebra, ODE, Multivariable Calculus, Linear Algebra & Probability
- **Activities:** Girls Who Code (Engagement Chair), Women in Computer Science (Community Chair), Society of Women Engineers, Columbia Organization of Rising Entrepreneurs, Columbia Ballet Collaborative, Columbia Repertory Ballet, Choreography Lab, Columbia University Ballet Ensemble

Work & Research Experience

Argonne National Laboratory – Mathematics & Computer Science Division *Researcher* **Sept 2025 – Present**

- Extending summer work to large-scale testing on Frontier, scientific applications, & other collectives

SULI Intern for the U.S. DOE | Supervisor: Dr. Mike Wilkins, Maria Goeppert Mayer Fellow *May – Aug 2025*

- Integrated AMD's RCCL into Argonne's MPICH to enable GPU-accelerated MPI for distributed AI workloads
- Designed & evaluated hybrid communication, achieving over 60x speedup in collective Allreduce latency

University of Chicago – Large-scale Sustainable Systems Group **Sept 2025 – Present**

- Implementing parallel-thread OpenSHMEM collective runtimes on novel UpDown systems in C++ container

Columbia University – Data, Agents, and Processes Lab **Sept 2025 – Present**

- Developing Cortex, a workflow-aware serving system for agentic LLMs, using SGLang, NL2SQL, OpenAI, AWS

Nori *Software Engineering Intern* – New York, NY **Oct 2025 – Present**

- Built & shipped core features leveraging Node, React, Supabase SQL, TypeScript, Docker to real customers

VenuAI *Software Engineering Intern* – Remote **Dec 2024 – Present**

- Shipped full-stack features using Django + React & developed automated internal security/access workflows

Columbia University - Computer Science Department *TA (COMS1002/1012)* **Sept 2025 - Present**

- Led recitations, graded assignments, and held office hours for 250+ students (NLP/Digital Humanities focus)

curaJOY Impact Fellow *Tech Cohort* **July 2025 – Oct 2025**

- Built cyberbullying detector using ML, deep learning, & transformers with preprocessing, deployed on AWS

Amikka Learning | Bethesda Scholars *Private Tutor* – Remote **Jan 2025 – Present**

- Provided individual SAT/ACT & AP (Calculus, Chinese, CS, Physics, Physics) tutoring to high school students

Crew Dog *Campus Partner* – Remote **Oct 2024 – Present**

- Collaborated with student clubs to streamline apparel orders, contributing to > $40k in sales in 1 semester

Personal Projects

Cloud-Deployed Ledger App *Team of 5* **Oct 2025 - Present**

- Built a production-ready ledger app using Java, RESTful API, Maven Spring with automated testing & CI/CD
- Implemented backend database on GCP, build demo client program, & deployed app to the cloud

"Claim to Fame" Celebrity Lookalike Matching *Personal Project* **March – May 2025**

- Built web app with integrated webcam for live user interaction using SVD & cosine similarity on 10k-images

Deep Learning Computer Vision Facial Recognition *Personal Project* **Jan 2025**

- Built a full media capture & data processing pipeline with webcam input using OpenCV & JavaScript WebRTC
- Integrated Caffe deep neural network face detector to run accurate inference on still images & video streams

Natural Language Processing Classifiers *Personal Project* **Nov – Dec 2024**

- Trained TF-IDF logistic regression model to classify 100k Yelp reviews by sentiment & graph data with PCA
- Trained word2vec model & compared with Google model to explore word semantics via analogies in the Bible

Awards & Skills/Interests

National Merit Scholar; Dean's List; President's Volunteer Service Award; YoungArts Finalist in Dance
Programming: Java, C, C++, Python, JavaScript, TypeScript, Bash, SQL, R,, HTML, Git, Node.js, Linux, Uvicorn, Spring, Restful API, Django, React, Maven, Docker, AWS, GCP, PostgreSQL, MPI, HPC, TensorFlow, SGLang, HuggingFace, PyTorch, CUDA, ROCm, Keras, machine learning, deep learning, data analysis statistics.
Languages: English (native), Mandarin (fluent/bilingual)
Interpersonal: Communication, collaboration, attention to detail, time management, adaptability, leadership
Interests: Ballet, HPC, accessibility AI, classical music, photography, cooking/baking, travel, educational equity