Ge (James) Jin

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EDUCATION

New York University, Tandon School of Engineering *New York, NY*
Bachelor of Science in Computer Science, Minor in Mathematics (GPA: 3.97/4.00) *Sept 2022 - Dec 2025*
Dean's List for Academic Year 2022-2023, 2023-2024, 2024-2025

PUBLICATIONS

[1] A. Yang*, **G. Jin***, J. Huang, Y. Wang, J.-R. Rizzo, and C. Feng, "Distillation improves visual place recognition for low quality images," in *Proceedings of the IEEE/CVF International Conference on Computer Vision workshops*, 2025.

* Equal contribution

EXPERIENCES

2026 IEEE International Conference on Robotics & Automation
Reviewer & Author of Submitted Manuscript Under Double Blind Review *Sept 2025 - Nov 2025*

Wei Ji Ma Lab, NYU Center for Neural Science
Research Assistant *Oct 2024 – Present*

- Study collaborative human planning with a connect-the-dots task inspired by the traveling salesman problem
- Built eye data analysis pipelines and multiplayer experiment software synchronized with eye tracker
- Designed difficult scenarios by comparing optimal and greedy policies and validated them on real participants

Automation and Intelligence for Civil Engineering lab (AI4CE Lab), NYU Tandon
Research Assistant, Supervised by Professor Chen Feng

Collaborative 3D Reconstruction for Embodied AI *Oct 2024 – Present*

- Developing an algorithm for inferring unified 3D point clouds using images from multiple embodied agents
- Analyzed interpretability of latent features and attention weights of related models (eg. CUT3R)
- Overcome single-agent constraint of existing datasets through designing discontinuous image sequences

Visual Place Recognition (VPR) for Low Quality Images [1] *Oct 2023 – March 2025*

- Performed knowledge distillation on VPR algorithms to improve performance under low image quality
- Utilized 11 VPR image datasets (both indoors/outdoors) across urban and rural environments
- Analyzed VPR algorithms' attention towards specific image parts through plotting activation maps

Sequential Lightweight VPR with Recurrence *May 2025 - Sept 2025*

- Compared a proposed recurrent VPR model based on STFormer against single-image VPR methods
- Developed a runtime-constrained criteria to demonstrate efficiency of proposed method against baselines

Applied Simultaneous Localization and Mapping (SLAM) *Sep 2022 - Dec 2023*

- Co-developed GPS-free navigation software utilizing OpenVSLAM and migrated system to StellaVSLAM
- Parallelized the system's RANSAC pipeline for image feature matching outlier detection
- Implemented Android user interfaces for field testing with blind and low vision subjects

Autonomous Vehicle Systems Lab, Technical University of Munich *Jul 2025 - Aug 2025*
Selected Participant of TUM PREP Program — Research under Professor Johannes Betz

- Reduced sensor dependency of the end-to-end self driving method DiffusionDrive by removing LiDAR
- Inferred LiDAR point cloud input using image-based foundation model VGGT

NYU Tandon Computer Science & Engineering, CS-UY 2124 Object-Oriented Programming
Teaching Assistant *Sep 2023 - Dec, 2025*

- Implement C++ model-based auto-testing using fMBT tool deployed via Docker
- Review C++ code to assess encapsulation, delegation, and inheritance-based reuse

Group on Applied Telecommunications, University of Antioquia, Medellín, Colombia *May 2024- Jul 2024*
Research Intern, Supervised by Professor Juan Rafael Orozco Arroyave

- Created a Python toolkit for end-to-end audio & video classification with SVM, random forest, and XGBoost
- Built visualizer for input attributions of transformer encoders for sequence classification (based on Ecco)

NYU Undergraduate Summer Research Program *Jun 2023 - Aug 2023*
Selected Participant — Research Under Professor Chen Feng

- Customized deep learning-based inertial odometry methods (e.g. AI-IMU dead reckoning) for real-world tests
- Designed and built an experimental platform using mobile phones for data collection and automatic labelling

CONTESTS AND AWARDS

1st Place - EVOLVE24 AI Impact Hackathon, Cloudera *Oct 2024*
NYU Tandon TCS Writing Award - Philosophy of Science Final Project *Apr 2024*
Successful - The Interdisciplinary Contest in Modeling (ICM), COMAP *Feb 2023*
2nd Place - Cloudera Applied Machine Learning Prototype Hackathon, HackerEarth *Dec 2022 - Jan 2023*
Outstanding - SIMIODE Challenge Using Differential Equations Modeling VII, SIMIODE *Oct 2022*

SELECTED COURSEWORK

CS-UY 4563 Introduction to Machine Learning - Grade: A *Fall 2024*
Benchmarked logistic regression, SVM, and ResNet18, 34, and 50 on CIFAR-10 image classification (github)

ROB-UY 3203 Robot Vision - Grade: A *Spring 2025*
Utilized image matching through ORB / SIFT features aggregated by VLAD to solve maze navigation

CS-UY 3943 Special Topics in Computer Science: Neuroinformatics - Grade: A *Spring 2025*
Decoded motion from IBL's *in vivo* mice electrophysiology dataset with a clusterless PointTransformer (github)

CSCI-UA 453 Theory of Computation - Grade: A- *Spring 2025*
Topics: Finite and pushdown automata, regular and context free languages, decidability of problems, NP-completeness

PHIL-UA 80 Philosophy of Mind - Grade: A *Fall 2024*
Topics: sapience and AI (e.g. the Blockhead), functional role semantics, cognitive access, theories of consciousness

SKILLS

- **Technical:** C++, Python, Java, PyTorch, concurrency, Android development, Ubuntu, Slurm, LaTeX
- **Languages:** English (Native), Mandarin Chinese (Native), Spanish (CEFR B2~C1)