Claryssa Tarigan

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Education

Columbia University — New York, NY

Bachelor of Arts in Mathematics-Computer Science — *Expected May 2027*

- **Relevant Coursework:** Calculus-Based Statistics, Linear Algebra, Accelerated Multivariable Calculus, Modern Algebra I, Discrete Mathematics, Competitive Programming, Artificial Intelligence, Advanced Programming, Senior Thesis (CS), Intro Data Science
- **Awards:** Viking Hacks 2023 (1st Place & Best Design), Piranha Pool (3rd Place)
- **Activities:** Application Development Initiative, Google Developer Group, Handshake AI, Women in Computer Science, Computing Talent Initiative

Experience

Barnard College — New York, NY

Research Assistant, Group Dynamics Lab (Prof. Kate Turetsky) — *Mar 2026 – Present*

- Developed an automated classification pipeline (Claude API) screening 11,000+ psychology articles at ∼20 articles/minute, cutting screening time by ∼80%.
- Achieved 94.6% accuracy and 98% recall on a 926-paper human-labeled validation set, prioritizing recall given the asymmetric cost of missed studies.
- Audited pipeline consistency across 11,312 papers, isolating 114 systematic inconsistencies.
- Benchmarking zero-shot, few-shot, and fine-tuned LLMs (closed- and open-source) for systematic literature review tasks, evaluating accuracy–recall–cost tradeoffs.

Columbia Build Lab — New York, NY

Software Engineer — *Sept 2025 – May 2026*

- Led design and front-end development for multiple startups, including early design systems with React.
- Implemented Google Authentication via API integration, reducing login time by ∼45% and improving signup completion.

Barnard College — New York, NY

Research Assistant, Programming Languages Lab (Prof. Mark Santolucito) — *Dec 2025 – Mar 2026*

- Supported experimental design, pilot testing, and dataset development for ongoing AI reasoning research.
- Recruited 20+ participants and collected interaction data across 40+ hours of experimental sessions to evaluate reasoning behavior and problem-solving strategies.

North Carolina State University — Raleigh, NC

Research Assistant, Poole College of Management (Prof. Joseph Brazel) — *Jan 2024 – Feb 2025*

- Tested experiment software and validated data across 100+ participant responses.

Publications

Brazel, J. F., Li, X., & Gold, A. *An Unintended Consequence of Full Population Testing on Auditors' Professional Skepticism.* SSRN Working Paper, 2024. Link

Contributed as a research assistant (data validation, experiment testing, manuscript review).

Projects

AI & Machine Learning | *Python, scikit-learn, TensorFlow*

- Implemented A* search (N-puzzle) and CSP backtracking with forward propagation (Sudoku).
- Built an expectiminimax agent with alpha-beta pruning and heuristic evaluation for 2048 gameplay.
- Trained machine learning models including KNN, Logistic Regression, Random Forest, and AdaBoost with hyperparameter tuning using GridSearchCV.
- Developed and trained a convolutional neural network (CNN) for sign language image classification using TensorFlow/Keras.

Skills

Languages: Python, C/C++, JavaScript, HTML/CSS, SQL

Tools: Flask, Bootstrap, Linux/Unix, React, Git, Figma, NumPy, Matplotlib, pandas, scikit-learn, TensorFlow