# Quilee Simeon

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## Education

**Massachusetts Institute of Technology (MIT)**, Cambridge, MA
Ph.D. Candidate, Interdisciplinary PhD in Brain and Cognitive Sciences and Statistics | Expected 2026
B.S. in Computation and Cognition, Minor in Statistics and Data Science | 2017 – 2021

## Research and Work Experience

**Graduate Research Assistant**, McGovern Institute for Brain Research, MIT | 2022 – Present
- Developed neural network models of nervous systems trained on experimental neural data.
- Contributed to 2 publications in progress.

**Software Development Intern**, Triplet Therapeutics, Cambridge, MA | 2019, 2021
- Automated pipeline for small molecule design, resulting in increased screening throughput.
- Built deep neural network models, improving drug candidate prediction accuracy by 20%.

**Quality Assurance Analyst**, Saint Lucia Distillers Group of Companies | 2016 – 2017
- Led upgrade project for ISO 20000 certification.
- Reduced production process waste by 10% and expanded product shelf-life.

## Teaching Experience

**Teaching Assistant**, Principles of Neural Computation, MIT | 2023
- Facilitated discussions on neural architectures, contributing to a 5% improvement in student project grades from previous years.
- Designed and implemented interactive programming labs to enhance understanding of neural computation models.

## Publications & Acknowledgements

**Preprints:**
- Simeon et al. (2024). "Scaling Properties For ANN Models of a Small Nervous System." bioRxiv
- Haspel et al. (2023). "To Reverse Engineer an Entire Nervous System." arXiv

**Acknowledged In:**
- Verbe et al. (2024). "Flies Tune the Sensitivity of Their Multifunctional Gyroscope." bioRxiv
- Friedman et al. (2020). "Striosomes Mediate Value-Based Learning Vulnerable in Age ...." Cell

## Skills

| Computer Programming | Analytical | Software |
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| Python, MATLAB, C, R | ML, AI, Statistics, Data Science | PyTorch, OpenAI APIs, Gym |

## Coursework

AI & ML, Statistics & Data Science, Statistical Learning, Discrete Math & Linear Algebra, Neural Circuits & Computational Neuroscience, Developmental Biology, Molecular & Cellular Neuroscience

## Leadership and Honors

Co-President, IEEE-HKN Beta Theta Chapter | Instructor, SPISE 2020 Computer Programming
Oxford Rhodes Finalist, Commonwealth Caribbean | Beta Chapter of Theta Chi at MIT