# Viraj Shitole

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EDUCATION	Georgia Institute of Technology Master of Science in Electrical and Computer Engineering	December 2025 GPA: 4.0
	University of Illinois at Urbana-Champaign	May 2023
	Bachelor of Science in Electrical and Computer Engineering	GPA: 3.75
	Bachelor of Science in Mathematics and Statistics	GPA: 3.75

### INDUSTRY EXPERIENCE

### Amazon, Seattle, WA

Summer 2022, Summer 2023

Software Engineer Intern

- Researched alternatives for Personalization team's approximate nearest neighbor algorithm in order to generate best product recommendations for the Amazon website.
- Delivered benchmark report demonstrating how to improve accuracy, runtime, and memory consumption for querying the Amazon product database.

### Capital One, McLean, VA

Summer 2021

Software Engineer Intern

- Created Apache Airflow Directed Acyclic Graphs to obtain data quality metrics so that consumers have access to data enabling them to make better financial decisions.
- Incorporated technologies from AWS, Databricks, and Snowflake to create data pipeline and perform analysis.

### RESEARCH EXPERIENCE

# **Graph Computation and Machine Learning Lab** January 2024 - Present Advisor: Pan Li

- Building a foundation model for large source code datasets to improve downstream performance on system optimization tasks.
- Developing algorithms unique to the directed graph data structure for graph learning.

# Center for Advanced Electronics through ML January 2021 - December 2022 Advisor: Elyse Rosenbaum

- Created data-driven models for transistors using Recurrent Neural Networks to replace time-intensive and costly physics-based circuit simulators.
- Collaborated with researchers from Sandia National Laboratories to apply models in their laboratory environment.

## EXTRA-CURRICULAR ACTIVITIES

### Illini Swim Club

- President January 2022 December 2022
- Record Holder: 500 Free, 1000 Free, 400 Free Relay, 800 Free Relay

### Math Competitions

- United States Mathematical Talent Search: Honorable Mention
- American Mathematics Competitions: AMC 12 (Top 5% score), AIME (Top 15% score)