

OLIVIA PHILLIPS

Atlanta, GA • ogphillips@gatech.edu

EDUCATION

Georgia Institute of Technology

Ph.D. in Operations Research.

Atlanta, GA

Anticipated May 2027

Harvard Graduate School of Education

Ed.M. in Secondary Math Education. Harvard Teacher Fellow.

Cambridge, MA

May 2021

Harvard College

A.B. in Applied Mathematics, cum laude.

Secondary in Linguistics. Citation in Spanish.

Cambridge, MA

May 2020

SKILLS

Programming: *Proficient:* Python, R, Julia, Gurobi, OR-Tools. *Experience:* OPL, AMPL, CPLEX.

Optimization: LP, MILP, CP, QCP, MIQP, heuristics, mathematical modeling.

Technical: Microsoft Office Word, PowerPoint, and Excel.

Languages: *Native:* English. *Fluent:* Spanish. *Conversational:* American Sign Language.

RESEARCH

Industrial and Systems Engineering (Georgia Tech)

PhD Researcher

Atlanta, GA

Fall 2023-Present

- Designing continuous and mixed-integer optimization models to analyze and improve school bus transportation eligibility policies in the Saanich School District. Advised by Dr. Arthur Delarue.
- Designing MILP models and related heuristics to optimize course-to-classroom assignment at Georgia Tech in collaboration with registrar. Advised by Joel Sokol and Dima Nazzal.

Operations Research Center (MIT)

Predoctoral Research Assistant

Cambridge, MA

Fall 2022-Summer 2023

- Built and tested MILP and MIQP models for paratransit vehicle scheduling and assignment to improve transportation service for individuals with disabilities. Advised by Dr. Dimitris Bertsimas.
- Developed a MILP model to assign teachers and students to courses at a large high school as part of a course project.

Boston Public Schools

Independent Project Researcher

Boston, MA

Spring 2020

- Developed a MILP model to assign bus monitors to routes given schedule constraints. Advised by Dr. Kevin Rader.

Federal Emergency Management Agency

Data Analysis Intern

Washington, D.C.

Summer 2018

- Investigated trends in HR data using exploratory data analysis. Generated models with accompanying visualizations to predict employee attrition. Advised by Dr. Carlos Davila.
- Presented findings to FEMA's data initiative. Results informed hiring decisions in the following years.

TEACHING

Georgia Institute of Technology, Graduate Student Instructor

ISYE 3133: Engineering Optimization

Atlanta, GA

Spring 2026

- Teaching new material and proctoring quizzes for 2 course sections twice each week.
- Collaborating with the entire ISYE 3133 teaching team to improve course materials and instruction.

Georgia Institute of Technology, Graduate Teaching Fellow

TA Development Academy

Atlanta, GA

Summer 2025-Present

- Observing and providing detailed feedback for graduate student teachers.
- Led training 3 sessions about student-centered teaching for incoming TAs prior to the first day of class.

Jackson-Reed High School (DC Public Schools), Teacher*Algebra 2, AP Calculus AB, AP CS Principles***Washington, D.C.**

Fall 2021-Spring 2022

- Designed AP Calculus AB curriculum to fit within a condensed semester schedule.
- Differentiated instruction to teach Algebra 2 to students of all skill levels in a single classroom.
- Restructured Algebra 2 curriculum to align with District guidelines.

Chelsea High School (Chelsea Public Schools), Teacher*Honors and College Prep Algebra 2, Statistics***Chelsea, MA**

Fall 2020-Spring 2021

- Adapted course materials for remote teaching, and then for hybrid teaching at the end of the year.
- Redesigned assignments to align with district initiatives and project-based learning.
- Taught credit recovery and test prep courses during school breaks.

Harvard University, Course Assistant*Introduction to Functions and Calculus II (Math MB)**Ordinary and Partial Differential Equations (AM 105)**Multivariable Calculus for Social Sciences (Math 18)***Cambridge, MA**

Spring 2018, Spring 2019

Fall 2018

Fall 2017

- Led office hours and recitations, graded problem sets and exams, and collaborated with instructional teams to improve course structure.

TALKS

“Who gets to ride? Comparing Transportation Eligibility Policies for Saanich Public Schools.” Talk at the *INFORMS Annual Meeting*, Seattle, WA, October 21, 2024.

“Who gets to ride? Comparing Transportation Eligibility Policies for Saanich Public Schools.” Talk at the *IISE Annual Conference*, Atlanta, GA, June 1, 2025.

“Who gets to ride? Comparing Transportation Eligibility Policies for Saanich Public Schools.” Talk at the *INFORMS Annual Meeting*, Atlanta, GA, October 28, 2025.

LEADERSHIP & ACTIVITIES**Harvard College Faith and Action***Discipleship Team Leader***Cambridge, MA**

2019-2020

- Assigned students to groups, trained group leaders, and wrote weekly discussion guides.

Harvard's Under Construction*Tour Manager***Cambridge, MA**

2017

- Organized spring break tours to NC (2019) and DC (2020).

Business Manager

2019-2020

- Booked gigs, organized logistics, scheduled rehearsals and meetings, and created committees.

HONORS & AWARDS

- Graduate Teacher Fellow, Georgia Tech Center for Teaching and Learning 2025
- Butler Family Fellowship 2024
- Marshall Family Fellowship 2023
- Harvard Teacher Fellow, Harvard Graduate School of Education 2020
- Leonard D. Schaeffer Fellowship in Government Service 2018
- Certificate of Distinction in Teaching, Harvard Office of Undergraduate Education 2018
- National Merit Scholar 2016

OTHER**Citizenship:** United States**Hobbies:** Solving the NYT crossword, creating educational math videos (combined audience of over 120k followers across TikTok, Instagram, and YouTube).