

Benjamin Nussbaum

www.benjaminussbaum.xyz

benjamin@benjaminussbaum.xyz

(802) 373-8662

Education

University of Rochester (UR) **Rochester, NY** **2017 - 2021 (Expected)**

B. S. Optics, B. A. Physics and Astronomy; Minors in Computer Science and Mathematics

GPA: 3.90—*Dean's List*

Awards and Recognitions:

★ *Dean's Citation for Broadening Participation in Research*

★ *Xerox Award for Innovation and Technology*

Highlighted Courses: Electromagnetic Theory · Quantum Mechanics of Physical Systems
Quantum/Nano Optics Lab. (Graduate level) · Optical System Layout/Analysis · Artificial Intelligence

Research Experience

Research Assistant **Vamivakas Group** **The Institute of Optics** **Summer 2019-Present**

Summer 2019 Project: "Investigating Image Quality by Increasing Illumination Coherence".

Short abstract: Spatially filtering a partially coherent source is shown to increase the coherence area.

Leadership

President **University of Rochester OSA (The Optical Society)** **2019-2020**

General club management · skilled group leadership · professional development · community outreach
Develop engagement between students of differing class years within the department and with students in other physics/engineering departments via social events from game nights to the annual Photon Cup.

Workshop Leader **The Institute of Optics** **University of Rochester** **Fall 2019**

Lead weekly workshops of a small group of students in Prof. Julie Bentley's Geometrical Optics course.
Facilitate work on solving problems extending important class topics and ideas.

Lab Teaching Assistant **The Institute of Optics** **University of Rochester** **Fall 2019**

Facilitate teaching lab experiments for groups of 2-3 students in the Geometrical Optics Lab. Assist during pre-lab lectures, grade and answer questions about the labs, assignments, and reports.

Photon Camp Counselor **The Institute of Optics** **University of Rochester** **Summer 2019**

Guided high school students through various labs/experiments and taught them about optics.
Supported a small team in the completion of a capstone project and poster presentation.
Provided mentorship and insight via answers to questions about my college experience.

Technical/Computer Skills

Fast learner and long-time programmer with broad experience:

CODE V, Zemax, Java, MATLAB, Python, Mathematica, JavaScript, Git, vim, L^AT_EX

Activities/Interests

Society of Physics Students · Philosophy Council · Performance Lighting and Sound · Chess · Gō