Benjamin Nussbaum

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(802) 373-8662

Education

University of Rochester   **Rochester, NY**   **2017 - 2021 (Expected)**
Bachelor of Science in Optics, Bachelor of Arts in Physics and Astronomy;
Minor in Computer Science, Minor in Mathematics

GPA: 3.90–*Dean's List*

Recipient–*Xerox Award for Innovation and Technology*

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

Research Experience

Research Assistant   Institute of Optics   University of Rochester   Summer 2019
Summer research project under Prof. Nick Vamivakas regarding Fourier processing of partially coherent sources. Abstract forthcoming.

Leadership

Vice-President   University of Rochester OSA   2019-2020
General management · group leadership · outreach event planning · tutor coordination.
Lead a group in planning, organizing, and constructing devices incorporating optical physics as a learning and professional development opportunity, e.g., an IR rangefinder using a Raspberry Pi.

Workshop Leader   Institute of Optics   University of Rochester   Fall 2019
Lead a group of 10-12 students in weekly workshops gaining intuition for material learned in Prof. Julie Bentley's Geometrical Optics lectures. Students break into groups and work on solving one or more problems extending important class topics and ideas.

Photon Camp Counselor   Institute of Optics   University of Rochester   Summer 2019
Guide high school students through various labs/experiments and teach them about optics and photonics.

Technical/Computer Skills

Long-time programmer with experience in:
Java, MATLAB, Python, Mathematica, JavaScript, Igor Pro, Logger Pro, PASCO Capstone™,
Zemax, C#, Web Application Development – ASP.NET Core & Entity Framework, Git, vim, LaTeX

Campus Activities

Professional Development Committee   University of Rochester SPS   2018-Present
Support committee chair in planning, organizing, and running events geared toward professional development of students interested in Physics and Astronomy, e.g., graduate student/faculty research panels, technology workshops, REU/summer program information sessions, and Ask Seniors Anything.

Work Experience

A/V Tech & Talent Interface   Vermont Comedy Club   Burlington, VT   2017-Present
Ensure smooth show operation by welcoming headliner and featured comedian(s) or improv groups, discussing set times and/or red light times. Manage all stage and showroom lighting, sound, and music live. Perform set changes for weekly improv and special event shows. Support waitstaff between two nightly shows and with post-show cleanup at the end of the night.