

# Jack O'Brien

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github.com/JackOBrien21

## Education

- **College of the Holy Cross** **Worcester, MA**  
*AB in Mathematics and Computer Science, GPA: 3.57; cum laude,*  
*Graduation: May 2023*  
**Honors:** Dean's List (Fall 2019 and Spring/Fall 2022), Pi Mu Epsilon Mathematics Honor Society
- **Chaminade High School** **Mineola, NY**  
*HS Diploma*  
*Graduation: June 2019*  
**Honors:** National Honor Society, 4 years on Honor Roll

## Skills and Relevant Coursework

**Programming Languages:** Java, Python, JavaScript, C#, SQL, HTML, CSS, MATLAB  
**Technologies and Frameworks:** ReactJS, NumPy, Pandas, Django, MySQL, Git  
**Mathematics Coursework:** Single and Multi-variable Calculus, Linear Algebra, Numerical Analysis, Probability Theory, Mathematical Models  
**Computer Science Coursework:** Data Structures, Analysis of Algorithms, Computer Systems and Organization, Artificial Intelligence, Computer Networking, Databases

## Work Experience

- **Department of Mathematics and Computer Science** **College of the Holy Cross, Worcester, MA**  
Teaching Assistant and Grader *Sep 2021 - May 2023*
  - Aid Professor in fielding questions and respond to students with various inquiries during lab, grade weekly assignments.
  - Conduct office hours for general questions and preparation for exams for the following classes: Intro to Programming, Data Structures, and Computer Systems and Organization.
- **Nassau County Board of Elections** **Mineola, NY**  
Information Technology Intern *Jun 2022 - Jan 2023*
  - Supported the IT director, configured and maintained various hardware and software, and performed regular back-ups.
  - Designed, tabulated, and verified ballots for elections held in Nassau County.
  - Installed computer systems and executed other duties as required.
- **Boy Scouts of America** **Onteora Scout Reservation, Livingston Manor, NY**  
Assistant Program Director and C.I.T. Director *Mar 2021 - Aug 2021*
  - Assisted in leading a program staff of 50+ members to provide Scouts the most enjoyable and memorable experience possible.
  - Developed, implemented, and managed a program schedule for 1500+ participants (adult and youth).
  - Developed a Counselor-in-Training program for aspiring staff members and provided them with the necessary knowledge to staff at Onteora Scout Reservation.

Assistant Program Director *Mar 2020 - Aug 2020*

  - Adapted a full summer program to a remote version on Zoom and assisted in leading a program staff of 50+ members.
- **Dining Services** **College of the Holy Cross, Worcester, MA**  
Student Supervisor *Jan 2020 - Jun 2022*
  - Led shifts consisting of mainly underclass student workers, assisted career staff wherever required.

Student Worker *Sep 2019 - Jan 2020*

  - Worked in the dish room, cleaned the dining hall, and meal preparation.

## Software Projects

- **Sorting Algorithm Visualizer**  
[github.com/JackOBrien21/visualizer-project](https://github.com/JackOBrien21/visualizer-project)  
Application that visualizes common sorting algorithms created using ReactJS, HTML, and CSS. The visualizer is hosted on Firebase and can be found at [obriensortingvisualizer.web.app](https://obriensortingvisualizer.web.app).
- **Personal Notes Application**  
[github.com/JackOBrien21/djangoNoteProject](https://github.com/JackOBrien21/djangoNoteProject)  
Notes application with login system with the ability to create, view, add new notes, and update existing ones. This application was created with Django (Python), HTML, and CSS.

## Achievements and Awards

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- **Eagle Scout with Palms**

**Theodore Roosevelt Council**

Boy Scouts of America

*December 2015*

Eagle Scout Project: designed, constructed, and installed a handicapped-accessible vegetable garden bed for an AHRC group home housing 10+ persons with mental/physical disabilities.

- **Vigil Honor**

**Theodore Roosevelt Council - Buckskin Lodge**

Order of the Arrow

*Oct 2019*

The Vigil Honor "is the highest honor that the Order of the Arrow can bestow upon its members for service to lodge, council, and Scouting". It is given not by one's efforts, but by recognition of exceptional service to Scouting, the Order of the Arrow and Scout Summer Camp.