

**School Address:**

100 Institute Road, Box 9090  
Worcester, MA 01609

**LUKE BARCKHOLTZ**

ljbarckholtz@wpi.edu | 908-801-5742  
linkedin.com/in/lukebarckholtz

**Permanent Address:**

224 Johnson Road  
Whitehouse Station, NJ 08889

**OBJECTIVE:** Summer 2024 Internship in Civil Engineering focusing in Structural Engineering

**EDUCATION:** **Worcester Polytechnic Institute (WPI),** Worcester, MA

Bachelor of Science in Civil Engineering, GPA 3.92/4.00 May 2024

**Hunterdon Central Regional High School (HCRHS),** Flemington, NJ

High School Diploma, W GPA 4.00/4.00 June 2020

**EXPERIENCE:** **Engineering Intern,** Siefert Associates, LLC, Watertown, CT

May - Aug 2023

- Assisted in construction engineering design for projects in NYC Metropolitan area
- Drafting drawings using AutoCAD detailing crane lift plans for various operations including structure erections, demolitions, and modifications
- Used RISA-3D and MathCAD to prepare calculations supporting adequate strength for structure stability, crane rigging, outrigger dunnage, and other typical construction engineering practices

**Geotechnical Engineer Intern,** GZA GeoEnvironmental, South Bound Brook, NJ May - Aug 2022

- Provided on-site assistance for preliminary site assessments, and earthwork construction projects
- Developed soil profiles from soil classification techniques, boring log data, and on-site conditions

**PROJECTS:** **Major Qualifying Project,** Panama City, Panama

Aug - Oct 2023

- Designed a boardwalk to facilitate research in a remote mangrove swamp in collaboration with four WPI civil engineering students for senior capstone project
- Created boardwalk prototypes to understand constructability and properties of building materials
- Researched environmental feasibility of potential materials when applied in a mangrove ecosystem
- Analyzed structure using appropriate load and design strength standards to verify structure strength

**Interactive Qualifying Project,** London, England

Jan - May 2023

- Collaborated with three WPI students on a long-term interdisciplinary research project
- Evaluated the feasibility of a potential rickshaw bike tour and transit service for a small museum

**SKILLS:** **Software:** AutoCAD 3D, RISA-3D, Bluebeam Revu, MathCAD, Solidworks, MSO

**Relevant Courses:** Steel Design, Concrete Design, Timber Design, Soil Mechanics

**Lab:** Construction Materials, Steel Design, Project Management, Surveying

**LEADERSHIP:** **Steel Bridge Competition Co-Captain,** ASCE, WPI

Oct - Mar 2024

- Organized student club entry for the AISC/ASCE Student Steel Bridge Competition
- Collaborated with a local steel fabricator to supply steel material and partnered with a vocational technology school to plan assembly of bridge parts
- Designed truss members and produced member shop drawings in Solidworks

**Individual Tutor,** Academic Resources Center, WPI

Aug 2022 - Present

- CRLA Level I Certified tutor for WPI Academic Resources Center for math and chemistry courses

**HONORS:** **Chi Epsilon,** WPI

Jan 2023 - Present

**Dean's List,** WPI

Dec 2020 - Present

**Eagle Scout,** BSA

Aug 2020