

# Mechanical Engineering Internship

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American Boronite Corporation ("Boronite") is early-stage advanced materials company focused on the development and manufacture of ultra-lite superfibers, superfabrics, and supercomposites made of continuous yarns and tapes of BNNTs (Boron Nitride Nanotubes) and CNTs (Carbon Nanotubes), often combined with other materials. Our materials have extraordinary structural and electrical properties that are ideal for electricity storage and distribution, actuation and monitoring, and advanced functional textiles and structural panels. Due to their incredible strength, negligible weight, and unique electrical, thermal and shielding characteristics, we expect our materials to become the backbone of a new class of structures that are multi-functional and offer tremendous cost and energy savings over existing materials.

We are seeking a hands-on, motivated, talented, and high-reaching multidisciplinary mechanical engineering intern for this summer to help in the detailed design, optimization, and operation of our state-of-the-art nanotube production equipment. In this position you will:

- Provide design and modeling support for our nanotube production, fiber handling, and post-processing systems.
- Develop instrumentation required to automate and optimize the process equipment.
- Prototype and build systems and modules.
- Assist in the operation of tape and yarn production systems.
- Work with Boronite's engineers and materials scientists to develop, characterize, and analyze properties of the material we make.

## About You:

You are enrolled in a bachelor's degree program (junior or senior year students preferred) in mechanical engineering, physics, or a related discipline. You are a self-starter, skilled at working on teams, know how to ask good questions, and are driven to learn.

## Required Skills:

- You are savvy with CAD software such as Autodesk Inventor or SolidWorks.
- You feel at home in the machine shop, and ready to prototype parts you design on a variety of machines (mill, lathe, belt sander, bandsaw, drill press).
- You are able to create detailed manufacturing drawings.
- You are comfortable with working with motors.

## Bonus skills:

- You have experience implementing motor control systems.

- You are familiar with Ansys, and/or other CFD modeling systems such as OpenFOAM.
- You are knowledgeable about textile manufacturing processes.
- You know how to interface with and/or develop programs in Labview.
- You have spent time in a chemistry lab and feel comfortable with chemical process development.
- You are passionate about nanomaterials.

If this sounds like you, submit a cover letter, a CV and names and contact information for two references to **Gaby.Waldman-Fried@Boronite.com**. This position is open only to US Citizens. We are an equal opportunity employer and do not discriminate on the basis of race, gender, sexual orientation, color, religion, national origin, political affiliation, marital status, disability, genetic information, age, membership in an employee organization, parental status, military service, or other non-merit factor. Position is full time (40 hours/week) for the duration of the internship. Interns should be able to provide their own transportation to our Burlington, MA office, although if this is not possible we will try our best to help you arrange car pools with some of our employees.

Successful interns will be considered for a full-time position. Boronite offers a competitive salary and generous equity incentives for its employees.