BRETT GUSTAVE WOMACK

Babylon, NY 11702 (Willing to Relocate)
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EXPERIENCE

Engineer Intern *May 2026 – August 2026*
Robert Derector Telecommunications, New York, NY

- Produced and updated low-voltage telecom CAD layouts using AutoCAD and Revit for commercial sites, contributing to improvement in design accuracy.
- Performed on-site audits across commercial sites to validate cable routing and equipment placement against engineering plans, ensuring project adherence.

Data Analyst *(Temp, Full-Time Summer, Part-Time Academic)* *Jul 2023 – Present*
University of Pennsylvania, School of Dental Medicine, Remote

- Reconciled EFT-deposit discrepancies through payor-portal research and custom analysis, ensuring 100% posting accuracy and reducing rework across weekly 835 imports.
- Monitored and resolved clearinghouse denials, improving claim-submission accuracy and shortening resubmission cycle times.

Pro Shop / Fitness Attendant — 2x Employee of the Month *(Student Employee – Academic Year)* *Aug 2024 – Present*
Boston FitRec, Boston, MA

- Assist 100+ daily patrons with facility and equipment guidance, improving user satisfaction.
- Process 50+ daily retail and rental transactions with 100% accuracy, ensuring smooth operations.

EDUCATION

Bachelor of Sciences, Mechanical Engineering *Expected 2027*
Boston University, Boston, MA

- GPA: 3.4
- Relevant Coursework: Electrical Circuits, Probability/Statistic and Data Science for Engineers, Statics, Dynamics, Aerodynamics, Fluid Mechanics, Thermodynamics, Mechanics of Materials, Material Science.

Bachelor of Sciences, Mechanical Engineering *Aug 2023 – May 2024*
University of Oklahoma Honors College, Norman, OK

- GPA: 3.8 – Deans Honor Roll (3.5+ GPA)

PROJECTS

Vending Machine Project – Team Lead *Mar 2026 – May 2026*
Boston, MA

- Designed and built an automated vending machine by integrating CAD-modeled mechanisms, laser-cut and 3D-printed parts, and a custom Arduino control system.
- Coordinated mechanical, electrical, and software subsystems to deliver a reliable dispensing mechanism, iterating performance through structured testing.

Liquid Automated Dispenser – Team Member *Sep 2025 – Dec 2025*
Boston, MA

- Led electrical wiring, CAD modeling, and Arduino coding for an automated soap dispenser, applying the full engineering design process to achieve reliable motion control.
- Developed and 3D-printed key components in SolidWorks and Bambu Lab, including a fixture connecting the actuator to the pump.

Oklahoma City Zoo Armadillo Enrichment Project – Team Lead *Sep 2024 – Dec 2024*
Norman, OK

- Collaborated with zookeepers to design and prototype an interactive dig box that enhanced armadillo engagement.
- Applied CAD modeling, machining, and 3D printing to build a prototype with food puzzles meeting zookeeper functional and safety requirements.

SKILLS

- **CAD/Modeling**: SolidWorks, Revit, AutoCAD, Rhinoceros 3D, OnShape, SketchUp, 3D Printing (PrusaSlicer, Slic3r, Bambu Lab).
- **Programming & Data**: Python, C++, Excel, Arduino, TinkerCad.
- **Fabrication & Design**: Hand and digital product sketching, Machining/Milling, Soldering, Circuit Design.
- **Visual Design & Artistry:** Drawing, Graphic Design (Photoshop, Illustrator), Mixed Media.