

Nitin Bhat

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Education

University of Maryland, Baltimore County May 2027 (Expected)
B.S. Mechanical Engineering GPA: 3.25

Skills

CAD: SolidWorks (CSWA Certification), SketchUp

Software: MATLAB, LTSpice

Workshop: 3D Printing, Power Tools, Carpentry Proficiency

Electronics: Arduino, Breadboard, Digital Multimeter, Oscilloscope, Waveform Generator

Engineering Projects

...Additional projects & details available on my website

Custom Climbing Wall Oct. 2024 – Dec. 2024

Lead Designer & Builder

- Contracted to design and construct a 16ft, 45° overhung lumber-framed climbing wall integrated into an existing warehouse structure without freestanding support
- Utilized SketchUp CAD to draft preliminary design and performed static, dynamic, and anchoring load calculations to ensure safety under weight of multiple climbers
- Used reciprocating and skill saws, drill press, laser level, planer, and other tools alongside carpentry techniques (joinery, framing, etc.) during construction

Garden Hose Nozzle Attachment Aug. 2025

Personal Project

- Used *Solidworks* to design a plant-watering hose nozzle attachment with flow restriction
- Applied Bernoulli and continuity equations to minimize exit velocity via flow restriction chamber
- Built prototype using 3D printing for all parts with PETG filament and plastite screws to join

Work Experience

Front of House | Chick-Fil-A | Cockeysville, MD Dec 2019- Dec. 2021

Dentist's Assistant | Dr. Nick Garcia DDS | Baltimore, MD May 2023 – Sept. 2023

Youth Teams Coach | Movement Gyms | Baltimore, MD May 2025 - Present