

NIKITA VINAY KISHAN

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EDUCATION

Boston University, College of Engineering

Boston, MA

Bachelor of Science, Biomedical Engineering, Concentration in Business Strategy

Expected May 2025

Relevant Coursework: Device Diagnostics and Design, Business of Technology Innovation, Python and Computational Biology, Probability and Statistics, Biomedical Instrumentation and Measurements, and Transport Phenomena

HONORS AND AWARDS

Design-A-Thon, Boston, MA

April 2024

- Awarded 1st place, people's choice award, and \$1500 cash prize for BreatheRight project (Sponsored by Merck)
- Presented market research, device design, diversity aspects of device, and plans to commercialize BreatheRight

Dean's Imagineering Competition, Boston, MA

April 2024

- Placed 2nd and won a prize of \$2000 for BreatheRight project

PROJECTS

Engineering Portfolio

July 2024 - Present

- Self-taught HTML, CSS, and JavaScript to develop a web-page to document all my projects and experiences

BreatheRight, Boston University

September 2023 - Present

- Pioneered this class II medical device idea, created 20+ business presentations, managed team in 3 competitions, responsible for human factors design, created 15+ CAD models of device, and wrote Arduino code for device
- Engineered a novel inhaler attachment that can take peak expiratory flow measurements and track medication use, geared for marginalized communities to provide improved respiratory health insights for users and clinicians

Wheelchair Lights, Boston University

April 2023 - June 2023

- Engineered a responsive lighting solution for wheelchairs, wrote Arduino code for the device, built the circuit, performed laser cutting and CNC milling on the enclosure, assembled the device, and led final presentation

RELEVANT EXPERIENCE

Cell and Tissue Mechanics Laboratory, Boston University

Boston, MA

Device Engineer

September 2024 - Present

- Designing a uniaxial biomechanical device to measure lung tissue plasticity, responsible for designing mold models using AutoCAD, performing Finite Element Analysis to model the device, and creating PDMS molds

Quality Control Microbiology Laboratory, Biocon Biologics

Bangalore, India

Lab Intern

July 2023 - August 2023

- Collected air and surface samples around production sites, performed bacterial spread plating and MALDI/TOF-based mass spectroscopy, facilitated meetings, managed inventory, and collaborated on design studies with R&D
- Practiced protein extraction from fungi for 100+ samples, membrane filtering techniques to test WFI, sterility testing for injectable drugs, injectables designing, and other drug delivery device design at the R&D department

Operations Department, Agganis Arena, Boston University

Boston, MA

Staff Supervisor

August 2022 – May 2024

- Supervised overall safety in accordance with OSHA construction standards, streamlined operational processes, responsible for inventory management, and planned events ranging from 100 to 7200 participants
- Directed teams to complete tasks such as event planning, stage building, floor removal, and customer service

OTHER EXPERIENCE

Swim School, FitRec, Boston University

Boston, MA

Swimming Instructor

April 2023 – May 2024

- Taught children and adults (6-month-olds to 75- year-olds) water safety, pool protocols, and basic strokes
- Monitored and documented individual swim stroke performance and provided detailed reports to parents

First Year Student Outreach Program

Boston, MA

Staff Leader

August 2022 - September 2022

- Led 15 first-year students through community engagement services in the greater Boston area, facilitated long-term team building, meaningful reflections, and discussions amongst 60+ staff and 300+ students.

SKILLS

- Computer: Python, MATLAB, C/C++, Microsoft Office Suite, Adobe Premiere, HTML, CSS, JS, Windows
- Laboratory skills: qPCR Genotyping, BET, Bacterial smearing, Quality control, Sterility testing, GMP
- Electronics and design: CAD, Electric circuit analysis, Verilog, Microcontrollers, Logic Design