Dharmin Patel

3541 Centennial Knoll Cir., Raleigh, NC 27606 | (704)-268-9144
dharminpatelportfolio.com | pateldharmin04@gmail.com | linkedin.com/in/dharmin-patel-4810a21a7

EDUCATION

North Carolina State University

- Major: B.S. in Mechanical Engineering — Anticipated May 2024
- GPA: 3.546

WORK EXPERIENCE

Design Engineering Intern | Carolina Components Group — May 2023 – August 2023

- Utilized AutoCAD to create custom drawings of single-use tubing assemblies requested by the customer.
- Learned and employed AutoLISP to construct commands that automate steps in the drawing design process.
- Managed and tracked all drawing and production order information related to the customer using Acumatica.

Undergraduate Research Assistant | NC State University — June 2022 – August 2022

- Simulated finger movement in a musculoskeletal model from given joint angle data by utilizing MATLAB and OpenSim.
- Incorporated static optimization and inverse kinematics to compare results with artificial data.
- Built and modified Adafruit's Animatronic Hand Project for use in biomechanics outreach events.
- Presented a research poster at the NC State Undergraduate Research and Creativity Symposium.

CLUBS AND EXTRACURICULARS

Chassis Research Lead | SolarPack – Structures Team | NC State University — September 2021 – Present

- Currently collaborating with other teams to design and manufacture a chassis for our solar-powered vehicle.
- Employed Ansys Mechanical to simulate and analyze static loading on the chassis model.
- Developed fiberglass layups for the battery enclosure that protected and stabilized the batteries.

PROJECTS

3D Printed Hydrogen/Hydroxy Generator | Personal Project — December 2022 – April 2023

- Manufactured a simple hydrogen/hydroxy generator through hydrolysis reactions.
- Designed and modeled all parts in SolidWorks and manufactured the body via a FDM 3D Printer.

Virtual Assistant | Personal Project — September 2022 – December 2022

- Utilized Python to create an interactive virtual assistant based on voice commands.
- Current Capabilities: creating lists, opening applications, conveying the weather, telling jokes, creating juice recipes based on a given container size, and searching for information on Google.

Racquetball Launcher | NC State University — February 2022 – April 2022

- Designed and manufactured a spring-based projectile launcher that accurately launched a racquetball into a bucket located anywhere from 3-12 feet in front of the launcher.
- Utilized MATLAB to find the spring compression needed to launch the balls at varying distances.
- Fabricated a 3D CAD model of the launcher using Fusion 360.

SKILLS

- CAD: SolidWorks, Fusion 360, Ansys, AutoCAD
- Programming: MATLAB, Python, AutoLISP, HTML, CSS
- Microsoft Excel
- Certified in Microsoft Word and PowerPoint

HONORS AND AWARDS

Goodnight Scholars Program | NC State University — August 2020 – Present

University Honors Program | NC State University — August 2020 – Present

LEADERSHIP AND CIVIC ENGAGEMENT

Volunteer | Food Drive | Gayatri Pariwar Charlotte | Charlotte, NC — October 2008 – October 2019

- Collected canned foods from neighborhoods and donated them to the *Second Harvest Food Bank of Metrolina.*

Volunteer | Service Raleigh | Raleigh, NC — April 2022

- Aided partners at the Umstead Coalition to clean and prepare for the annual Walk/Run/Bike event.