

J A Y S T O N A R L E N M E N E Z E S

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EDUCATION

Northeastern University

Master of Science in Mechanical Engineering, Concentration: Mechatronics

Relevant Coursework: Control Systems, Robot Mechanics & Control

Boston, MA

Expected Dec. 2023

Fr. Conceicao Rodrigues Institute of Technology

Bachelor of Science in Mechanical Engineering

Mumbai, India

June 2021

SKILLS

- **CAD Packages:** AutoCAD, Autodesk Inventor, Autodesk Fusion 360.
- **Programming Skills:** C, MATLAB, GNU Octave, Arduino, Python, HTML, CSS, JavaScript, XML, MySQL.
- **Simulation Software:** ANSYS (Mechanical APDL and Workbench), SolidWorks.
- **Documentation Tools:** MS Word, MS Excel, MS PowerPoint, MS OneNote.

EXPERIENCE

Northeastern University

Graduate Researcher

Boston, MA

May 2022 - Present

- Research about developing a Virtual Neuromuscular Controller for commanding torque for assistive walking using exoboosts and Python.

Larsen & Toubro Hydrocarbon Engineering

Mechanical Engineering Intern

Mumbai, India

July 2021 - Sept 2021

- Analyzed functional details of EPCI (Engineering, Procurement, Construction and Installation) of offshore sites in the Oil & Gas industry.
- Demonstrated a case study on the working of Sump Caisson and recent advancements for improved design.

Bharat Petroleum Corporation Limited

Mechanical Engineering Intern

Mumbai, India

June 2019 - July 2019

- Explored different types of pumps used in an oil and gas refinery such as Submersible Pumps, Screw Pumps and Centrifugal Pumps.
- Completed a technical study and gained hands-on experience on maintenance operations of Submersible Sump Pumps at the refinery's Central Engineering Workshop.

PROJECTS

Simulation of Sequencing for Stochastic Scheduling in Job Shop Final Project

July 2020 - June 2021

- Developed 4 scheduling simulation environments to operate under different natures of scheduling using Python.
- Modified simulation environment to suit the requirements of R. D. Engineering Co., a pipe fittings, flanges, and sockets manufacturing company, providing 100% accuracy and results in seconds.

Application Software for Design of Hoisting Mechanism

Jan 2021 - May 2021

- Implemented software for design calculations and stress analysis of hoisting mechanism system.
- Optimized software to reduce calculation time by 1 hour, ensuring accuracy and specification of standard components.

ACTIVITIES

Indian Society of Heating, Refrigerating and Air Conditioning Engineering

Institute Chapter President

Mumbai, India

Sept 2019 - March 2020

- Organized Technical Talk for Students by industrialist professionals providing real-world experience.
- Assisted in Organizing Flagship Event for 200+ college students across 12 colleges.

Trinity College London

Certified Keyboardist (Theory & Practical)

Mumbai, India

November 2013