

Pedro Pinto

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EDUCATION

University of Michigan

Master of Science in Engineering in Mechanical Engineering

GPA: 4.0/4.0

Coursework: Design Optimization, Finite Element Methods in Applied Mechanics, Mechanical Vibrations, Nanofabrication and Nanomanufacturing Technology, Solid and Structural Mechanics

Ann Arbor, MI

Aug 2023 – May 2025

University of Porto

Bachelor of Science in Mechanical Engineering

GPA: 3.8/4.0 (US Grading System); 17/20 (Portugal Grading System)

Porto, Portugal

Sep 2020 – Jul 2023

WORK EXPERIENCE

Sartorius

Mechanical Engineering Intern

Ann Arbor, MI

May 2024 – Aug 2024

- Designed 3D parts and created 2D drawings and BOMs in SolidWorks for the company's next Incucyte medical device
- Executed hands-on prototyping and subassembly builds to identify issues before full production and prepared standard operating procedures (SOPs) to guide manufacturing assembly
- Conducted clearance fit tests to proactively pinpoint potential contact areas and modified designs to remove excess material using Design for Manufacturing (DFM) and Design for Assembly (DFA) principles

INEGI – Institute of Science and Innovation in Mechanical and Industrial Engineering

Engineering Intern

Porto, Portugal

Jan 2023 – Jul 2023

- Developed advanced numerical models of composite materials in Abaqus using Python scripting, optimizing simulation processes and enhancing computational efficiency
- Performed structural finite element analysis (FEA) of laminated Double Cantilever Beam (DCB) specimens with varying thicknesses and ply repetitions to evaluate their effects on fracture toughness across different modes

Deloitte

Trainee

Porto, Portugal

Aug 2022 – Sep 2022

- Assisted a client in enhancing user data security by managing sensitive data with SAS Data Integration Studio
- Acquired knowledge of SQL and applied it to improve data handling and analysis processes

RESEARCH EXPERIENCE

University of Michigan Department of Mechanical Engineering

Student Researcher

Ann Arbor, MI

Jan 2024 – May 2024

- Performed computational optimization through MATLAB and COMSOL of the joining surface between a megacast platform and additively manufactured parts
- Developed and modified a multi-component topology optimization code to find a single partition line between a megacast and additive parts, given their variant geometries and structural requirements

LEADERSHIP EXPERIENCE

NEEM FEUP – Mechanical Engineering Student Association of the University of Porto

Director of the External Relations Department

Porto, Portugal

Jun 2022 – Jun 2023

- Directed a collaborative team by setting strategic goals and establishing weekly objectives to drive achievement
- Planned and managed activities such as pitches and case studies to engage students in hands-on learning experiences
- Pitched to partner companies and sponsors to secure support and resources for student-led engineering initiatives

SKILLS

Software: AutoCAD, SolidWorks, Fusion 360, Abaqus, COMSOL, Microsoft Office (Word, Excel, PowerPoint)

Programming: Python, C++, SQL, MATLAB, LaTeX

Languages: Fluent in Portuguese and English

ACTIVITIES

University of Michigan Club Gymnastics Member

Aug 2023 – Present

Engineering Tutor

Jan 2024 – Present

Piano and Music Theory Instructor

Sep 2022 – Jul 2023