Pedro Pinto

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EDUCATION

University of Michigan **Ann Arbor, MI**
Master of Science in Engineering in Mechanical Engineering *Aug 2023 – May 2025*
GPA: 4.0/4.0
Coursework: Design Optimization, Finite Element Methods in Applied Mechanics, Mechanical Vibrations, Nanofabrication and Nanomanufacturing Technology, Solid and Structural Mechanics

University of Porto **Porto, Portugal**
Bachelor of Science in Mechanical Engineering *Sep 2020 – Jul 2023*
GPA: 3.8/4.0 (US Grading System); 17/20 (Portugal Grading System)

WORK EXPERIENCE

Sartorius **Ann Arbor, MI**
Mechanical Engineering Intern *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 **Porto, Portugal**
Engineering Intern *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 **Porto, Portugal**
Trainee *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 **Ann Arbor, MI**
Student Researcher *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 **Porto, Portugal**
Director of the External Relations Department *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*