KEN M. NSIEMPBA

Computational Designer

CONTACT

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Botengu

Ken Nsiempba

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SKILLS

Rhino3D

Blender

AutoCAD Inventor

Grasshopper3D

Python

C#

C++

Java

R

Matlab

HTML

CSS

Microsoft Office

WORK EXPERIENCE

Computational Designer — **Sep 21 - Apr 22**
Podform3D, Montreal, Quebec, Canada

- Designed medical orthotics
- Generated computational tools to allow the design and the alteration of medical orthotics
- Used machine learning tools to automate the process of designing medical orthotics

Research Associate — **Feb 21 - Feb 22**
University of Waterloo, Waterloo, Ontario, Canada

- Redesigned parts using Design for Additive Manufacturing principles
- Directed and supervised the writing of scientific articles
- Generated new geometrical modeling tools

Engineering Intern — **May 17 - Dec 17**
Pratt & Whitney Canada, Longueuil, Quebec, Canada

- Co-organized workshops where designers and supply chain employees met to look for redesign opportunities
- Generated resources regarding suppliers of 3D printing equipment/training
- Led meetings and supervising a team of designers
- Followed up on and ensured the completion of design projects

Research Intern — **May 15 - Aug 15**
McGill University, Montreal, Quebec, Canada

- Implemented algorithms for lattice structure manipulation
- Evaluated the manufacturability of my designed structures
- Collaborated with my teammates to integrate our components and build a plug-in for Rhino3D
- Presented my work in the form of a poster to a broad audience

EDUCATION

MASc - Mechanical & Mechatronics Engineering — **2018- 2020**
University of Waterloo - Waterloo, Ontario (Canada)

Thesis' title: Coupled Experimentally-Driven Constraint Functions and Topology Optimization utilized in Design for Additive Manufacturing

ACHIEVEMENTS

Rapid+TcT Conference

2019
I was the second runner up for the poster challenge, winning a 250$ (USD) price in 2019

CanadaMakes3D Challenge

2018
I was a finalist of the Canada Makes 3D challenge

Bachelor - Mechanical Engineering **2013 - 2018**
McGill University - Montreal, Quebec, (Canada)

PUBLICATIONS

Geometrical Degrees of Freedom for Cellular Structures Generation: A New Classification Paradigm **UGC Listed**
Appl. Sci. 2021, 11, 3845
https://www.mdpi.com/2076-3417/11/9/3845

Status: Accepted and Published

PROJECTS

My personal website **2020**
Tool: Python, HTML, CSS,Ruby, JavaScript, Markdown

As I had more free time during the final period of my master's degree, I dedicated some time to work on my online portfolio, here are some developed a website using GitHub Pages Portfolio Link here.

My 3D printer **2015**
Tool: Reprap kit

During my research internship, I was eager to learn about 3D printing technologies. I ordered the parts of a reprap printer (Prusa i3) and built it from scratch.

EXTRACURRICULAR

- I was the VP external for the McGill Additive Manufacturing Students' Society between 2015 and 2018
- I was a member of the McGill Robotics team between the years 2013 and 2015