

# Hi, I'm Jose Martinez Castro

I am an industrial designer and mechanical engineer passionate about using biodesign and novel technologies to create a sustainable future. I have professional experience in design and research in biomaterials, biomedical, and sports application. On the side, I enjoy rock climbing, swimming, and 3D animation.

## Skills

- Blender 3D/SolidWorks/Keyshot
- Grasshopper
- Adobe Creative Suite
- Advanced 3D Printing
- Arduino Prototyping
- Matlab/Python/C++

## Education

2019 - 2021

### Technische Universiteit Delft

Master of Science

Integrated Product Design

2014 - 2019

### University of British Columbia

Bachelor of Applied Science

Mech. Engineering - Biomedical

## Awards

2019 & 2020

### TU Delft Merit Scholarship (€5.000)

2018

### Geyer Family Award in Biomedical Engineering (\$2.800)

2018 & 2016

### NSERC USRA Award (\$9.000)

2016

### UBC Trek Excellence Scholarship (\$1.500)

2016

### UBC Frank Vernon Memorial Scholarship (\$500)

## Contact

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Delft, ZH, Nederland

## Experience

### Technische Universiteit Delft

Oct 2021 - Present

Junior Researcher - Materials Experience Lab

- Developing a digital biodesign tool to simulate the growing conditions of Flavo bacteria in an interactive 3D environment using procedural material textures in Blender 3D.
- Writing academic paper for DIS conference on interactive textiles.
- Developing pattern designs for use in bioprinting using Grasshopper.

### Technische Universiteit Delft

Oct 2020 - Jul 2021

Teaching Assistant - Industrial Design

- **ID5413-19 Material Driven Design** - assisting professor in the coordination of day to day activities of a project based course.
- **ID4135-16 Modelling** - assisting students with Matlab programming and engineering analysis of products through online Q&A sessions.
- **People in Transit Minor** - providing live demos and assisting students in automotive 3D modelling and rendering/animation using Blender.

### Arbutus Medical

Jan 2018 - Aug 2018

R&D Engineering Intern

- Developed the manufacturing process of the new product through intuitive jig design and clear visual instructions.
- Designed automated testing jigs to validate durability of the product involving machining, electronics, and programming.
- Involved in designing product accessory through rapid prototyping and validating usability with doctors and engineers.

### UBC Aerodynamics Laboratory

Jun 2017 - Sep 2017

Research Intern

- Performed wind tunnel textile aerodynamics experiments and analysis for Nike, Sugoi, Garneau, and the Canadian Olympic team.
- Developed an automated wind speed control system for UBC's largest wind tunnel using a PID controller with Matlab and Labview.

### Evasec Medical Systems

Sep 2016 - Dec 2016

Engineering Intern

- Designed inspection jigs for use within a sterile environment with the use of milling and lathe machines.
- Performed laboratory and manufacturing processes within a clean room environment to assemble the sterile product.