

# TOMAS CABEZON PEDROSO

## COMPUTATIONAL DESIGNER

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## Education

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### MS in Computational Design

Carnegie Mellon University  
2021 Sep - 2023 May · Pittsburgh, United States

### MS in Computational Engineering and Mathematics

GPA 9.04/10 - Universitat Oberta de Catalunya  
2020 Sep - 2021 Jun · online

### BS in Industrial Design Engineering

### BS in Mechanical Engineering

GPA 8.81/10 - Universidad Politécnica de Madrid (UPM)  
2014-2020 · Madrid Spain, exchange programs in:

- Universidad Técnica Federico Santa María

(2019 Feb-Jul · Valparaíso, Chile)

Magalhães Exchange student scholarship

- Politecnico di Milano

(2018 Sept-2019 Feb · Milano, Italy)

Erasmus Exchange student scholarship

- Tongji University Shanghai

(2017 Sept-2018 Jul · Shanghai, China) -

UPM-Tongji Exchange student scholarship

## Skills

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### Programming languages:

Strong: Python, Javascript, HTML, CSS  
Familiar: Matlab, Java, SQL

### Design:

UX/UI design, user research, rapid prototyping, wireframing, concept sketching, usability and concept testing. Software: Adobe Suite, Figma, AutoCAD, Office, SolidWorks, Blender, Maya MEL

### Languages:

Spanish and Basque (bilingual)  
English (proficient - TOEFL IBT 107/120)  
Chinese (intermediate, HSK4)

## Experience

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### UPM Collaboration Scholarship - Researcher

2019 Sept - 2020 Jun · Madrid, Spain

Researched randomness as a source for algorithmic design of new geometries and 3D modelling during a research scholarship at the Mathematics Department of ETSIDI (UPM). Performed a study of the mathematical models of Bezier and Spline curves as well as their computational implementation and the user's interaction with the algorithm.

### 西睿羿设计 2G Design Agency - Product Design intern

2018 May-July · Shanghai, China

Worked in the product design department of this studio specialized in the Chinese market of cosmetics and beauty. Responsible for multiple design projects, taking part in the several parts of the design process, carrying out from sketches to 3D models and rendering as well as the details and standards involved in the creative process.

## Notable projects

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### Capabilities and limitations of style transfer with CycleGANs

2021 · Master's Thesis

Implemented a CycleGAN using Pytorch to study the possibilities of style transfer in design applications. Trained the model to learn and translate images from an initial sketch to a final rendered images.

**publication:** <http://hdl.handle.net/10609/1360475>

### Use of random methods in the generation of geometric shapes

2020 · Bachelor thesis

Developed a generative system of different ring models using splines. Conceptualized the mathematical model and implemented the mesh generating algorithm based on the users parameter selection. Designed the visual layout to empower the users' interaction with the program allowing the generation of their own 3D models. Each ring is unique and is fabricated by 3D printing and posterior casting.

**publication (Spanish):** <https://oa.upm.es/69208/>

## Accomplishments

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2021-2023 · Fulbright Fellowship

2016 · Madrid Excellence Award for best university students

2015 · ETSIDI 's Best Student Record of first university year

2015 · UPM Academic Excellence Award

2012 - 2022 · Bilbao City Viuda de Epalza Excellence Award