Cesar Vandevelde, PhD

design technologist

My name is Cesar and I am a design technologist with an unstoppable desire to create. My background is in industrial design, though I am comfortable in many different mediums for creative expression, such as software, hardware, interaction and visual design. I have spent the past few years working towards a doctorate degree, a period during which I created and investigated novel ways of designing DIY social robots. Having recently finished my PhD, I look forward to applying my skillset in a context that is closer to industry and to the users. Technology continues to have a tremendous impact on all aspects of society, and I want to help create the next big thing. I am a quick learner and I thrive in complex, multidisciplinary environments. I am flexible and I feel comfortable in both designer and engineer mindsets, allowing me to bridge the gap between these worlds. I don't shy away from practical work either; I have a strong affinity for tinkering and making, and I firmly believe in the value of a hands-on, iterative prototyping approach. Curious for more? Take a look at my portfolio (www.cesarvandevelde.com) and let the work speak for itself.



Cesar Vandevelde, PhD

Kortrijk, Belgium

10-07-1990 (28)

hello@cesarvandevelde.com

+32 (0)496 92 31 84

An interactive overview of my work can be found on my website: www.cesarvandevelde.com

Education

Ghent University

2012 - 2017

Ph.D. — Industrial Design Engineering Technology

After graduating, I was offered the chance to pursue a doctorate degree at Ghent University. A unique chance to broaden and deepen my skill set by performing academic research in an international, interdisciplinary environment. Obtaining my PhD was a challenging, yet deeply rewarding experience.

- Dissertation: Study on the Design of DIY Social Robots

Howest

2008 - 2012

M.S. — Industrial Engineering: Industrial Design

As an industrial design engineer, I could combine my technical knack with my passion for creativity, arts and design. During this hands-on educational program, I discovered my love for designing electronic and mechatronic products.

- Master's thesis: Ono, a Huggable Robot
- Graduated magna cum laude

Work Experience

Self-employed

2018 - present

Freelancer - Technology Design Services

After years of working in a research environment, I felt it was time for a new challenge. I decided to start my own business, helping companies develop the interactive products of tomorrow. My services include software development, electronics design, and hardware prototyping

Ghent University

Researcher Smart Products for Mobile Wellbeing

- Tech-transfer project with local industry focused on IoT technology.
- Primary technology expert within the project.
- Responsible for creating working prototypes of smart product concepts.

Ghent University

2012 - 2017

Ph.D. — Industrial Design Engineering Technology

- Created an open source toolkit for building custom social robots with facial expressions.
- Developed software, electronics and mechanical hardware for social robots.
- Organized 3 workshops at international conferences where novices created fully-working social robots over the course of one day.
- Authored 3 publications in scientific journals and 10 papers presented at international conferences.
- Teaching assistant for courses "mechatronic product design", "constructive design", "design and workspace".
- Gave guest lectures on specialist subjects: "additive manufacturing", "social robotics", "interaction design", "electronics prototyping".
- Supervised 7 master's theses.

Delta Light

summer 2011

Internship R&D department

Designed and prototyped outdoor lighting products.

Betafence

summer 2010 summer 2009

Student job R&D department

Created fully-parametric CAD models of fencing products. Reverse engineered and created production drawings of legacy products.

Competences

digital manufacturing

I am proficient in operating digital manufacturing machines and I know how to design for each specific technique.

3D-printing

Laser-cutting

CNC machining



electronics prototyping

I can build working electronics prototypes and one-off designs using off-the-shelf components.

SMD Soldering

Debugging

PCB rework



pcb design

I can turn a prototype circuit into a compact printed circuit board designs and I have experience with PCB manufacture.

Eagle CAD

Digital circuits

Analog circuits



languages

Dutch

English

French

...and more

Driver's license
Welding
Teaching

P

concept development

I have experience with ideation, conceptual design and product innovation techniques.

Communicative sketching
Technical creativity
Co-creation



prototype fabrication

I am familiar with a wide range of manual prototyping techniques.

Moulding
Finishing
Woodworking
Metalworking



software development

I am a skilled programmer with experience in a wide range of programming languages.

C/C++
Python
HTML/CSS
Javascript

personality traits

Creative and open-minded Problem solver Quick and eager learner Meticulous Flexible Stress-resistant Independent



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aesthetics design

I have an eye for aesthetics and visual design. I have experience with different mediums, including print, digital, and product design.

Adobe suite Photography





mechanical engineering

I am a trained engineer. I have a broad background in engineering principles, tools, and techniques.

Solidworks Rhinoceros Siemens NX





interaction design

I am specialized in designing interactive products, a discipline that combines aspects of the physical and the digital world.

User-centered design
Usability/UX
Interface design

Accolades

2016 Urban Crafts — finalist

2015 FEA Research Symposium — poster laureate

2013 International Conference on Social Robotics — best poster

award

2013

Maker Faire Rome — Maker of Merit award

2012 ProtoPitch — winner "Prix de l'Innovation Transfrontalière"

2012 Dag van de Ingenieur — finalist

Personal life

In my free time, I am an amateur photographer. I enjoy swimming as a physical outlet. I like tinkering with electronics in my spare time and I help out as volunteer at local Repair Café events. I am also an avid science-fiction fan and I love going to stand-up comedy shows for a fun night out.