

# Girish Malage

Transforming ideas into products, Marine Enthusiast, Diver, Farmer

[www.girishmalage.com](http://www.girishmalage.com)

## EXPERIENCE

**Temporary Works Design (TWD), Rotterdam** | October 2022 - Present  
*Off-shore Heavy Engineering and Equipment Design, Conceptualization, Technical 3D modelling, fabrication drawings, prototyping*

- Concept to detail design of massive installation machinery and structures like sea fastening for transition pieces and monopiles, anode cage towers, customised uplift clamps and pre-piling templates for off-shore wind turbine installation, catering to clientele such as DEME, Heerema Marine Contractors, RWE Germany and Van Oord.
- Optimised designs to substantially reduce steel usage, weights, and welds, thereby enhancing cost-efficiency, lead times and structural integrity.
- Crafted comprehensive deck plans to facilitate the precise positioning of various equipment on barges and vessels, meticulously considering operational sequences both on quayside and offshore.
- Specialised in access design, ensuring compliance with ISO safety guidelines for 300+ ton pre-piling templates and monopile sea fastening structures, demonstrating a profound commitment to humanistic aspects within the offshore industry.
- Conducted prototyping workshops, imparting invaluable knowledge to fellow designers and engineers to effectively communicate engineering challenges.

**Freelance Product Designer, Delft & Mumbai** | January 2014 - Present  
*Product Design & Development, Conceptualization, Small-scale manufacturing assistance and consultant*

- Collaborated with over 20+ start-ups, design researchers, engineers and mid-sized hardware organisations to conceptualise, design and develop products and components.
- Delivered end-to-end design solutions encompassing concept design, CAD modelling, technical drawings, manufacturing guidance, and making functional prototypes for consumer products, packaging, mycelium, medical, drone tech and marine ecosystems. Applied TRLs wherever necessary.

**Loop Biotech B.V, Delft** | October 2020 - August 2021  
*Lead Product Development and Innovation*

- Led a team of 3 to double the monthly manufacturing output from 16 to 32 mycelium coffins a month.
- Created sustainable production, validation and quality control parameters for transitioning from pilot to commercial operations.
- Applied 3D CAD modelling, load simulations and large-scale 3D printing to design and manufacture the moulds and coffins.
- Managed procurement and manufacturing operations of the mycelium coffins by designing and maintaining a lean production facility in Delft within 2 months.

## CONTACT

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Delft, The Netherlands

## EDUCATION

**M.Sc. Integrated Product Design, Industrial Design Engineering**

**TU Delft**

September 2018 - October 2020

**Bachelor of Architecture**  
**Mumbai University**

July 2012 - April 2016

## SOFTWARE SKILLS

Solidworks, Fusion360, Inventor, Sketchup, Rhino, AutoCAD, Illustrator, InDesign, Photoshop, Keyshot, V-Ray, Microsoft Office

## DESIGN SKILLS

Product Sketching, Product Embodiment, Material Exploration, Rapid Prototyping, Design for Manufacturing and Assembly (DFMA), User Research

## PROTOTYPING SKILLS

Investment Casting, 3D Printing (FDM, SLS, SLA), CNC, Welding, Woodworking, Arduino, Lathe Operations, Laser Cutting, Building with Bamboo, Sewing, Clay Modelling, Mycelium construction, Fibreglass Moulding.

**TU Delft, M.I.S.I.T. Lab, Delft** | March 2020 - October 2020

*Graduate Researcher in Laparoscopic Surgery*

- Conducted remote research to identify gaps in methods of cleaning of surgical instruments in rural India. Developed a process journey to highlight areas of design intervention based on a comparative study.

- Conceptualised and 3D CAD engineered a “Frugal Mechanical Washer for Cleaning Laparoscopic Surgical Instruments” for rural Indian contexts.

**Delft Science Centre, Delft** | February 2020 - May 2020

*Restoration and 3D CAD modeller, Lighting Engineer, Experience and Exhibition Design of a Triceratops Skull Fossil*

*This project was a Finalist for the [d]arc award in 2021.*

- Aided the restoration of a 66-million-year-old Triceratops skull with anatomical precision through 3D CAD modelling, scanning, and 3D printing.

- Developed the lighting and exhibition design concepts to communicate the technologies employed to restore the fossil to engage a variety of audiences.

**TU Delft, Delft** | May 2019 - August 2020

*IDE Academy Course Teaching Assistant and Facilitator*

- Facilitated the logistics of 130 workshops for 300+ students weekly for the IDE Academy Course at the Faculty of Industrial Design Engineering.

- Managed a constant flow of student queries and feedback in order to process smooth and timely delivery of course information and grades.

**SenseGlove BV, Delft** | July 2019 - November 2019

*Industrial Design and Product Development Intern*

- Design for Manufacturing and Assembly of the SenseGlove Pro Haptic Feedback Glove through 3D CAD modelling for 3D printing and injection moulding to attain modularity, repairability, user-friendly form.

- Provided engineering drawings for injection moulding and assembly of the product.

- Designed test setups to analyse and predict failures.

**S.D.G. School, Cite des Sciences et de L'industrie, Paris** | June 2019, June 2020, June 2021, June 2022

*Mentor and workshop facilitator*

Mentored 150+ students for the S.D.G School projects about cases under the United Nations Sustainable Development Goals 2030 of which the French Government shortlisted three projects for further development in the Emerging Market contexts.

**Bombay International School, Mumbai** | March 2017 - March 2018

*Innovation Workshop facilitator, Teacher*

Organised weekly prototyping, design thinking and hands-on workshops for 8th-grade students in 3D CAD modelling, 3D printing, woodworking and Arduino.

## LANGUAGES

English (Native)

Dutch (A2 Diploma)

Hindi

Marathi

Kannada

## INTERESTS

Building low-cost 3D printers,

SSI Certified Deep Diver, Beach

Cleanup, Farming, Kayaking,

Bass guitar, Mountaineering,

Vintage bicycle restoration, Metal

casting and forging

**Maker's Asylum FabLab + Imaginarium, Mumbai** | June 2016 - June 2018

*Head of Operations, Technical Instructor*

- Managed workshop operations, procurement, prototyping machines and 3D print farm.
- Collaborated with Imaginarium, India's largest 3D printing company, to design and develop complex 3D printed machine parts.
- Fulfilled orders for 3D Hubs, Mumbai.
- Instructed and managed 3D CAD modelling, 3D printing and Technical Drawings for 200+ members and 20 new learners each month.
- Built and donated 15 low-cost 3D printers for education in the slums of Mumbai, India.

