

Professional Profile

Mechanical engineer with experience in the automotive and industrial engineering sectors, specializing in surface modeling and product architecture.

Worked on collaborative projects with companies at national and international levels. Strong ability to lead and coordinate projects, meet deadlines and quickly adapt to new environments and challenges.

CURZIO PAGLIARI



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EXPERIENCE AND CURRENT POSITION

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| 2023 – Present | PhD Student , University of Bologna
<i>Program: Automotive Engineering for Intelligent Mobility</i> |
| Sept 2023 – Present | Teaching Assistant , University of Bologna
<i>Subject area: ING-IND/15 – Design and Methods of Industrial Engineering</i> |
| July 2020 – Aug 2020 | Campaign Collaborator , Webtitude di Laura Politi, Pistoia
<i>Managed content for an electoral campaign, working closely with the candidate.</i> |
| Feb – July 2020 | Intern - Department of Industrial Engineering (DIN) , University of Bologna
<i>Partnership with Rizzoli Orthopaedic Institute conducting CAD-based simulations for complex orthopedic surgeries.</i> |

EDUCATION

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| Sept 2020 – Feb 2023 | MSc in Mechanical Engineering , University of Bologna, Restricted-access program.
<i>Thesis: "Concept Car Design Based on Market Needs: Vehicle Architecture Optimization and Surface Styling". Final Grade: 108/110.</i>
Italian State Examination for Professional Engineers , Passed with full marks (60/60). |
| Mar – Jul 2022 | International Study Period , Lawrence Technological University, Detroit (USA)
<i>Focused on market analysis tools, vehicle architecture and bodywork modeling within the automotive sector, with an emphasis on real-world industrial applications and company-oriented design processes.</i> |
| Sept 2017 – Dec 2020 | BSc in Mechanical Engineering , University of Bologna, Restricted-access program.
<i>Thesis: "Simulation Methods in Orthopedic Surgery through 3D Software"</i> |

IT AND TECHNICAL SKILLS

Software & Tools

CAD Modeling:

PTC Creo, CATIA, Geomagic DesignX

3D & Surface Design:

Blender, Autodesk AUTOCAD, ALIAS, VRED

Others:

Microsoft 365, Slicing & 3D Printing Tools

Design & Prototyping

Creation of styling **mock-ups** and physical models

Composite lamination and material handling

High-quality **rendering** for vehicle and product design

VR/XR environments for design review and presentation

SOFT SKILLS

Teamwork

Project coordination & Team supervision

Public speaking & Technical presentation skills

Problem-solving & Critical thinking

Flexibility and fast learning in new contexts

LANGUAGES

Italian: Native

English: Fluent – C1 level (written/spoken)

PUBLICATIONS

Journal Articles

Virtual Reality for Collaborative Design Review and Learning in Hydrogen Vehicle Architecture - 2025

Curzio Pagliari; Edoardo Pignatelli; Leonardo Frizziero - DOI: 10.1002/cae.70015

Enhancing ergonomic comfort: A study on customized cushion design using 3D scanning and additive manufacturing - 2025

Curzio Pagliari; Andrea Montalti; Leonardo Frizziero; Alfredo Liverani - DOI: 10.1016/j.rineng.2025.104256

Design and Validation of an Eco-Compatible Autonomous Drone for Microplastic Monitoring in Port Environments - 2025

Daniela Francia; Giulio Galì; Curzio Pagliari

Design and development of a peristaltic pump for constant flow applications - 2023

Ferretti, P.; Pagliari, C.; Montalti, A.; Liverani, A. - DOI: 10.3389/fmech.2023.1207464

An innovative and cost-advantage cad solution for cubitus varus surgical planning in children - 2021

Frizziero, L.; Santi, G.M.; Leon-Cardenas, C.; Donnici, G.; Liverani, A.; Napolitano, F.; Papaleo, P.; Pagliari, C.; Antonioli, D.; Stallone, S. et al. - DOI: 10.3390/app11094057

Effectiveness assessment of CAD simulation in complex orthopedic surgery practices - 2021

Frizziero, L.; Pagliari, C.; Donnici, G.; Liverani, A.; Santi, G.M.; Papaleo, P.; Napolitano, F.; Leon-Cardenas, C.; Trisolino, G.; Zarantonello, P. et al. - DOI: 10.3390/sym13050850

In-house, fast fdm prototyping of a custom cutting guide for a lower-risk pediatric femoral osteotomy - 2021

Frizziero, L.; Santi, G.M.; Leon-Cardenas, C.; Donnici, G.; Liverani, A.; Papaleo, P.; Napolitano, F.; Pagliari, C.; Di Gennaro, G.L.; Stallone, S. et al. - DOI: 10.3390/bioengineering8060071

Book Chapters

Advancements in Design of Personalized Bone Scaffolds and Fabrication Through 3D Printing - 2025

Giulia Alessandri; Curzio Pagliari; Marella De Santis; Leonardo Frizziero - DOI: 10.1007/978-3-031-76597-1_5

Enhancing Ergonomics and Aesthetics in Hybrid Sports Vehicle Design: A Comprehensive Methodology Integrating IDeS & Human-Centered Approach - 2025

Curzio Pagliari; Edoardo Pignatelli; Alessandro Secli; Leonardo Frizziero - DOI: 10.1007/978-3-031-76594-0_23

International Conference Proceedings

CAD aided pre-operative planning and prototyping of Cubitus Varus cutting guide - 2021

Napolitano, F.; Frizziero, L.; Santi, G.M.; Donnici, G.; Liverani, A.; Papaleo, P.; Pagliari, C.; Leon-Cardenas, C.; Trisolino, G.; Maredi, E. et al. - Part of ISBN: 9781792361241

CAD aided pre-operative planning and prototyping of HTPLA orthopaedic femoral cutting guide - 2021

Papaleo, P.; Frizziero, L.; Donnici, G.; Liverani, A.; Santi, G.M.; Napolitano, F.; Pagliari, C.; Leon-Cardenas, C.; Trisolino, G.; Maredi, E. et al. - Part of ISBN: 9781792361241

Cad-aided preoperative simulation in complex orthopaedic surgery - 2021

Pagliari, C.; Frizziero, L.; Donnici, G.; Liverani, A.; Santi, G.M.; Papaleo, P.; Napolitano, F.; Leon-Cardenas, C.; Trisolino, G.; Zarantonello, P. et al. - Part of ISBN: 9781792361241

CAD-Aided Preoperative Simulation in Pediatric Orthopedics: The Case Study of Ollier's Disease - 2021

Frizziero, L.; Liverani, A.; Santi, G.M.; Papaleo, P.; Napolitano, F.; Pagliari, C.; Trisolino, G.; Di Gennaro, G.L.; Zarantonello, P.

AWARDS

3rd Place, Undergraduate Research Competition, IEOM International Conference, Singapore (March 2021)

1st Place, Simulation Competition, 4th European IEOM Conference, Rome (August 2021)

1st Place, Graduate Student Competition, 7th North American IEOM Conference, Orlando (June 2022)