

# Emile Courthoud

## Curriculum Vitae

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06.10.1994, Aosta, Italy



## Education

- 2017– ongoing • **ETH – Swiss Federal Institute of Technology, Zürich.**  
**Master of Science in Mechanical Engineering.** Tutor: E. Mazza. GPA 5.5/6.  
**Master thesis:** "Impact of imperfections on the effective performance of truss metamaterials". Grade: 5.5/6.  
Supervisor: Prof. Dr. D. Kochmann. Theoretical and numerical exploration of the influence of geometric imperfections generated during additive manufacturing processes on truss metamaterials.  
**Semester thesis:** "Design of a bioreactor chamber for the characterization of a biocompatible hyperelastic membrane used in left ventricular assist devices". Supervisor: V. Marina. Grade: 5.5/6.
- 2014–2017 • **Polytechnic University, Turin.**  
**Bachelor of Science in Mechanical Engineering.** Final Grade: 110/110 cum Laude, GPA 29.6/30.  
**Bachelor thesis:** "Instrumented indentation: application of three different methods to evaluate the elasto-plastic properties of the materials". Supervisor: Prof. G. Maizza. Experimental investigation of macroindentation technology, formulation of a numerical model for the process characterization.

## Work Experiences and Projects

- Feb 2020 – ongoing • **Management consultant**, SpaceTec Partners, München.  
◦ Contributed support on ESA / GSA projects  
◦ Developed market analyses and forecasts on the space landscape  
◦ Organized workshops and meetings with clients
- 2019 • **Weekly workshops**, GCC – Graduate Consulting Club, Zürich. Active member of the GCC. Exploration of management consulting via seminars, challenges and business cases.  
**Workshop**, Bain & Company, Turin. "Bain consulting challenge", full immersion in the life of a strategic consultant.  
**Workshop**, Deloitte, Zürich. Problem solving competition "Pub Quiz Challenge".  
**Workshop**, BCG – Boston Consulting Group, Zürich. Academic training "How to tell a convincing story".
- June 2018 – Jan 2019 • **Development engineer**, internship, HQ of Nobel Biocare, Zürich. Fast Impact & Sustaining Team led by M. Wiederkehr.  
◦ Design and execution of product lifecycle projects such as the improvement of engineering processes, technical drawings and technical documentation according to ISO 13485 / ISO 14971 / FDA requirements  
◦ Monitoring multiple tasks requiring the alignment of interdepartmental stakeholders' interests  
◦ Identification of bottlenecks in the company processes and development of solution strategies and counteractions  
◦ Leading the training process for newly hired employees and creation of a dossier supporting their integration
- July 2016 • **Summer school**, EIA - European Innovation Academy, Turin, three-week workshop on the development of a new venture. Following all the milestones for creating a startup - from idea to launching.
- 2015 – ongoing • **Private tutor**, teaching in Physics, Mathematics and Mechanics to high school and university students.
- Sept 2015 • **Summer school**, Alfaclass – Turin, CRT Foundation. Summer school of Mathematics for merit-based selected students. Workshops, seminars and math competitions.

## Scholarships

- 2015 – 2017 • **Scholarship "Young Talent Project"** (Percorso Giovani Talenti), Turin, Polytechnic University. Three year program for the best five percent achieving students. Financial grant along with summer and winter schools, conferences, seminars and extracurricular class courses.

## Computer Skills

Text Processing Word, Excel, PowerPoint, Latex – proficient level.  
Programming Python, Matlab – proficient level. C++, Java, GitHub, Mathematica – good knowledge.  
CAD, FE NX Siemens, SolidWorks, AutoCAD, Ansys, Abacus – good knowledge.  
ERP SAP – proficient level.

## Languages

Italian	Mother tongue.	French	IB1/B2, bilingual High School.
English	C1, daily use.	German	B1. Attending language courses.

## Interests and Activities

New technologies, programming and developing logical schemes. Developed accounting system that monitors the finances of multiple real estate properties, library database, Android app and Mac app for learning German, etc.  
Keen interest in tutoring, mentoring, teaching. Tutoring friends and colleagues since the first year of High School.  
High mountain hiking, Snowboarding, cycling and travelling. Participating in 3/4 running competitions per year.