

Lionel RAT

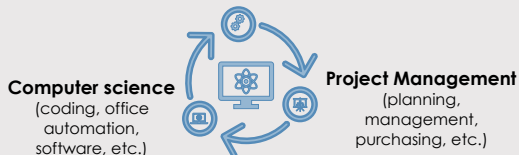
PERSONNAL

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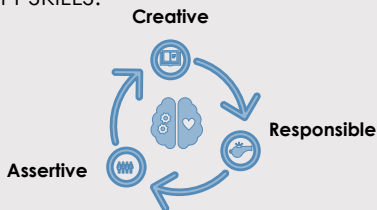
SKILLS

HARD SKILLS:

Mechanical Engineering
(design, manufacturing, calculations, etc.)








SOFT SKILLS:



SOFTWARE

CAD: SolidWorks, CATIA
CAM: TopSolid
Choice of materials: CES
3D rendering: Keyshot, Blender
Virtual Reality: Unreal Engine
Calculation: Finite elements (Abaqus, Comsol), Math (Matlab, Octave)
ERP: SAP
Other: Pack office, Anaconda (code), Krita (drawing)

LANGUAGES

FRENCH: Native 
ENGLISH: C1 
GERMAN: B1 
ITALIAN: B1 
JAPANESE: A1 

Mechanical engineer

Product | Ergonomic | Sustainable

OBJECTIVE

Passionate, innovative, and autonomous. I am open to find new challenges and opportunities. I am thriving working in a scientific environment, on innovative topics as in design office allowing me to design technical and innovative products. Hence my objectives are to be able to carry challenging, innovative project useful for the society of tomorrow.

EDUCATION

University of Technology of Belfort and Montbéliard (2022-2023)

Master's degree in Entrepreneurship and Industrial Technologies.

University of Technology of Belfort and Montbéliard (2020-2023)

Engineering degree in Ergonomics, Design and Mechanical Engineering.

IUT Annecy-le-Vieux (2018-2020)

Technological University Degree in Mechanical and Production Engineering.

WORK AND RESEARCH EXPERIENCES

VIE – System Design Responsible / Mechanical Engineer – [2023-2025]

Safran Electrical & Power – Donauwörth, Germany

International volunteering mission of two years.

Product Management (Lighting Helicopter Equipment): Managing the development of both external and internal equipment which results in dealing with change management for equipment facing obsolescence, analysing/writing technical documentation, conducting bench tests, communicating with clients/suppliers, etc.

Mechanical Design (Antennas, Cockpit/Interior design): Designing several types of equipment for helicopters whether it is mechanical mounting for antennas, and space allocation, or interior design for new helicopter prototypes. The design process was from creating process documentation, to blueprints, and CAD design on CATIA.

Research Engineer – [2023]

ICB – LERMPs (Laboratoire d'études et de Recherches sur les Matériaux, les Procédés et les Surfaces) – Belfort, France

Internship of 6 months. Research and innovation in additive manufacturing using SLM and new aluminum alloys (aluminum-silicon and aluminum-scandium) in the laboratory, with numerical simulations and modelling. This work led to the creation of concrete prototypes such as heat exchangers, cooling systems, prosthetics, etc., and participation in an international conference in Genoa.

Product Designer – [2022-Now]

Artem Tech. – Freelance

Business development: Prospecting clients, and following up the administrative tasks, and declarations of a small business

Product design: Proposing different offer to customers from sketching innovative ideas, to 3D modelling, and rendering. I was able to accompany businesses whether it is for marketing, fundraising, development, etc.

TECHNICAL SKILLS

Product Design:

- Mechanical: Mechanic, Fluid, Thermodynamic study
- Industrial: sketching, modeling, rendering
- Ergonomic: Numerical dummies, design thinking, UX, etc.
- Sustainable design: Life cycle study, choice of material, optimization, etc.
- CAD, Blueprints drawings
- Choice of component
- Virtual reality: project review, showroom

Project Management:

- Business Development: Market, analysis, Financial model, Business model
- Project management: Risk management, Resource management, Client and Supplier prospection, Quoting and invoicing

HOBBIES

Mountain Sport: Passionate of mountain sports such as skiing, climbing, or hiking.

Craftmanship: Building DIY projects such as bench, clock, snowboard, etc.

Drawing: Creation of drawings, painting whether it is products, landscapes, or abstract.

Mechanical Engineer – [2021-2022]

Manvest Concept – Strasbourg, France

Internship of 6 months, designing various handling equipment.

Project Management: Conduct an analysis from the customer needs, with commercials, to define specifications, invoice preparations, schedule, etc. And follow-up the development of the product from the choice of suppliers to the production management.

Mechanical Design: The designing process was from sketching the equipment and mechanism, to following up the production. By choosing electrical, and pneumatic components from suppliers, producing CAD, and blueprints in SolidWorks, while considering ergonomic, sustainable, and costs aspects.

Industrial Designer – [2023]

Chauvin Arnoux – Annecy, France

Internship of 4 months, designing bench test machine to check the compliance of electronic measuring devices to mechanical resistance European standards.

The designing process was from drawing the mechanism, to produce a SolidWorks CAD model, and blueprints, while choosing mechanical and electronical components.

EVENTS / CHALLENGES

CONFERE – [2023] – Genoa, Italy: Participation in an international conference to present research results about additive manufacturing.

Les Entrep' – [2023] – Belfort, France: Winning two prizes in a national entrepreneurship competition with two international team projects (KiNEO, and FairWinds).

Innovathon – [2020-2023] – Belfort, France: Participating to engineering's school innovathon to solve innovative problems.