

Alexandre LOEBLEIN HEINEN

Seeking a Permanent Position (CDI) within the Tech for Good sector

Available immediately

PROFILE

Engineer and Technical Leader with 8+ years of expertise in autonomous systems, software development, and applied mathematics. Proven track record in designing and scaling complex flight control stacks, with a focus on precision and reliability within the aerospace and defense sectors.

Founding member of deep-tech startups and cross-functional leader, I specialize in bridging the gap between cutting-edge R&D and operational deployment. I am dedicated to fostering inclusive, horizontal environments where technical excellence is driven by empathy, supportiveness, and a collaborative spirit.

Now seeking to leverage this analytical excellence and leadership to drive high-impact innovation within the MedTech, Circular Economy, or Tech for Good sectors. Committed to transforming precision engineering into meaningful solutions for the common good.

PROFESSIONAL EXPERIENCE

Senior GNC Engineer | Founding Engineer

April 2024 – October 2025

Harmattan AI, Paris, France

Founded in 2024, Harmattan AI is the first **unicorn** in the French Defense Tech industry. As a **founding member**, developed the flight control stack for drones in the defense industry, focusing on ISR (Sonora), SAR (Sahara), and counter-UAS (Gobi) applications.

Worked on the design of drone platforms (sizing, simulations, component integration, algorithm specification) and established company standards for code quality, infrastructure (laboratory and software), and development cycles (SDLC, CI/CD).

Team Lead | Finance & Cross-Product

January 2024 – April 2024

Weezevent, Clichy, France

Led a **cross-functional engineering team** of 6 engineers, focusing on Python-based system development and full-stack integration of a platform for the 2024 Olympic Games in Paris, integration of new payment methods, and financial reconciliation for cultural events.

R&D Engineer to Team Lead | Autonomous Flight

January 2019 – November 2023

Parrot, Paris, France

As the first engineer hired for autonomous flight features, designed, implemented, and scaled the obstacle avoidance system for the Anafi Ai.

Acted as Technical Leader for the design of autonomous missions for wind turbines, power lines, and radio towers inspections.

Managed the Autonomous Flight Team, overseeing – besides the aforementioned features – innovation projects in 3D perception using deep learning, and managing the team growth (from 2 to 7 engineers) and roadmap. Products: Anafi Ai (post-production), Anafi USA, Anafi UKR.

Embedded System Developer | Founding Team

August 2017 – September 2018

ARPAC Drones, Porto Alegre, Brazil

As a **founding member**, developed the first autonomous missions for crop dusting and biological plague control in the PX4 flight stack.

Defined coding quality standards, built the first drone prototypes, including integrating electromechanical devices (pumps, motors) and performing the flight control tuning.

linkedin.com/in/alexandreheinen/

Dual Citizenship: French & Brazilian

EDUCATION

École CentraleSupélec, France

Supélec Engineering Diploma, 2017

Major: Automation & Systems
(Control Engineering)

Université Paris-Saclay, France

Master degree in Aeronautics & Space, 2017

Specialization: GNC, satellite dynamics, and aerospace systems

Universidade Federal do Rio Grande do Sul (UFRGS), Brazil

B.Eng. in Control & Automation Engineering, 2018 (equiv. BAC+5)

LANGUAGES

English: Professional proficiency (daily use since 2018, TOEFL IBT 92/120).

French: Full proficiency (living in France since 2014).

Portuguese: Native.

TECHNICAL SKILLS

GNC & Robotics: Control theory, sensor integration and data fusion, real time systems, obstacle avoidance and motion planning.

Software & Hardware: Python, C/C++, MATLAB, ROS, embedded Linux, algorithms, data structures, SLDC, CI/CD.

Leadership: Team management, Agile methods, Cross-functional collaboration, Technical roadmapping.

SOFT SKILLS

Cultural Awareness: Work experience in Europe and South America, enabling effective collaboration in multicultural teams.

Adaptability: Performs in uncertain environments, scaling startups and driving R&D projects from concept to deployment.

Autonomy: Proven ability to take ownership of projects, from designing systems to establishing company standards and managing team roadmaps.