



Elio GEREIGE

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Languages: Lebanese Arabic (Native), English (Full Professional), French (Full Professional)

Summary

Biomedical and Mechanical Engineer, and PhD Candidate in Nanomedicine, with 3+ years of cross-functional R&D experience in the healthcare and pharmaceuticals. Skilled in leading teams and projects and delivering solutions from concept to prototype. Eager to leverage my technical and managerial experience to drive innovation and product success in Product Management roles.

Core Skills

Product Development, Prototyping, CAD (SolidWorks, FreeCAD, AutoCAD 2D), Data Analysis, Programming (LabVIEW, MATLAB, Python, R), Simulation (ANSYS, COMSOL, OpenFOAM, Simulink), Troubleshooting, 3D-Printing, Manufacturing, Leadership, Communication, Problem-Solving.

Relevant Professional Experience

Industrial PhD Candidate, Inside Therapeutics (InsideTx), France | Feb 2024 – Present

- Assisted in the design, prototyping, and characterization of NanoPulse – a novel organic nanoparticle synthesis machine.
- Developed simulation programs and mathematical models to study, optimize, and improve the mixing process in NanoPulse.

R&D Engineer, Inside Therapeutics (InsideTx), France | Nov 2023; Jan 2024 – Feb 2024

- Designed, 3D-printed, assembled, and tested the characterization bench for the microfluidic chips of [TAMARA](#).
- Automated the data analysis of characterization bench results, reducing processing time and biases.

R&D Biomedical Engineering Intern, Inside Therapeutics (InsideTx), France | Apr 2023 – Sep 2023

- Synthesized liposomes of controlled diameters using a novel micro-mixer and characterized their sizes and PDI via DLS.
- Developed autonomous image analysis algorithms using ImageJ to validate the micro-mixer's mathematical model.

R&I Biomedical Engineering Intern, Hôpital Marie-Lannelongue, France | May 2022 – Jul 2022

- Optimized the pre-clinical Ex-Vivo Heart Perfusion (EVHP) system in a confidential interdisciplinary project.
- Partnered with medical stakeholders to align engineering solutions with clinical needs.

Mechanical Engineering Intern, Pharmaline – Malia Group, Lebanon | Mar 2021 – May 2021

- Created Standard Operating Procedures (SOPs) and Preventive Maintenance Logbooks for 11 pharmaceutical machines.
- Performed preventive maintenance on pharmaceutical machinery, following Good Manufacturing Practices (GMP).

Extracurricular Experience

Vice President, IP Paris Postgraduate Alumni Association, France | Feb 2024 – Sep 2024

Built the club's early online presence, recruited members, and established connections with other alumni associations.

President, Student Board (BDE) of Institut Polytechnique de Paris, France | Oct 2022 – Oct 2023

Led an 8-member board, raised €12k in funding, and organized large-scale events for 100+ international students.

On-Campus Events Officer, ASME LAU's Student Section, Lebanon | Jun 2020 – Jun 2021

Organized a renewable energy webinar and an e-waste management competition in collaboration with NGOs.

Education

Industrial PhD (CIFRE) in Nanomedicine, MINT [Université d'Angers – UMR Inserm 1066 – CNRS 6021], France | Ongoing

Presented and got awarded at renowned international conferences and seminars in the nanomedicine field.

Master's Degree (PhD Track) in Biomedical Engineering, École Polytechnique – Institut Polytechnique de Paris, France | Sep 2023

GPA: 16.63/20; Ranked 2nd | **Awards:** Excellence Scholarship, awarded for M1 & M2.

Bachelor of Engineering (BE) in Mechanical Engineering, Lebanese American University, Lebanon | Jul 2021

GPA: 3.86/4; Ranked 5th | **Awards:** High Distinction and [The Award of Excellence in Engineering](#) – given to 1 engineering student every year | **Publication:** Ghanem, C., Gereige, E., Bou Nader, W., & Mansour, C. (2021). [Stirling system optimization for series hybrid electric vehicles](#). *Proceedings of the IMechE, Part D: Journal of Automobile Engineering*.

Selected Certifications

- McKinsey Forward Program, *McKinsey & Company* (2025).
- Pharmaceutical GMP Training, *AKTEHOM* (2025).
- CE Marking & International Product Certification, *CAP'TRONIC* (2024).