
Elie Geagea

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Objective

Researcher with a Ph.D. in Material science, specialized in advanced microscopy techniques (AFM, STM) and ultra-high vacuum. Possessing foundational knowledge of SEM and TEM from university internships, I will be delighted to use my technical expertise, communication skills and problem-solving abilities in a sales manager role at AMETEK. Through my abilities, I am able to convince clients in French-speaking European nations to choose Gatan and EDAX solutions.

Professional Profile

- **Professional expertise with scientific instruments:** Extensive knowledge of UHV systems and scanning probe microscopy (AFM, STM).
 - **Essential SEM and TEM Experience:** Working with these technologies for the characterization of graphene-based thin-film materials during my Master internship, I became familiar with SEM and TEM applications. This provides a solid foundation for understanding and commercializing Gatan and EDAX's SEM and TEM solutions.
 - **Customer Focused Skills:** 10 years of experience in the restaurant and hospitality industries, developing customer service, communication and relationship building skills, all essential for a sales role.
 - **Transferable Skills for sales:** Strong background in solving problems, client interactions and proven capacity for presenting complex technical ideas to a wide range of audiences, which makes me suitable to engage with customers, explain product benefits, and support their technical needs.
 - **Multilingual Communication:** Able to communicate effectively in both French and English, establishing trusting bonds with customers around the French-speaking countries and the whole world.
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Professional Experience

Postdoctoral Researcher

Université Aix-Marseille, France

2022 – Present

- **Advanced Instrumentation Use:** Specialized in high-precision instruments, including AFM and STM, regularly operating in ultra-high vacuum (UHV) conditions to perform surface analysis and study chemical reactions on the nanoscale.

- **Cross-functional Collaboration:** I support my research group by providing technical insights, ensuring the effective use of complex instrumentation. My ability to troubleshoot and optimize equipment is directly transferable to assisting customers with Gatan and EDAX products. On the scientific level I work and communicate frequently with multiple collaborators inside and outside France (Germany, UK, Canada) to discuss the advancement of our projects and set the future plans to ensure their success.
- **Presentations & Communication:** I have presented oral and poster presentations at local and international conferences, and have published one article in a peer-reviewed journal with more to come. In addition, I provide technical training to new team members (students, technicians, postdocs) and guested scientists. This experience demonstrates my ability to clearly communicate complex information, an essential skill for conducting product demonstrations and interacting with diverse audiences.

Ph.D. Researcher

University of Franche-Comté, France

2019 – 2022

- **Surface Chemistry and Material Science Expertise:** I successfully completed a research project focused on surface reactions and materials science, which resulted in 7 publications in peer-reviewed journals. This work allowed me to gain a deep understanding of advanced local probe microscopy techniques used in UHV, to explore the chemical behavior of organic molecules by imaging and manipulating them at the atomic scale.
- **Interdisciplinary Communication:** I worked closely with diverse teams (academical and industrials) to present findings and/or troubleshoot equipment, honing the ability to explain complex systems to a variety of stakeholders.
- **Public Speaking & Publications:** I presented at international conferences and published peer-reviewed papers, building experience in conveying technical ideas clearly and concisely, skills essential for customer-facing roles.

Master 2 Internship

Lebanese University, Lebanon

2016 – 2017

- **SEM and TEM Exposure:** I gained foundational experience with SEM and TEM during this internship, using these instruments for materials characterization as part of a project on graphene-based materials for flexible solar cells.
 - **Graphene-Based Materials Development:** I conducted experiments on the deposition of graphene oxide by electrospray technique, followed by reduction to transparent and conductive films.
 - **Collaborative Problem Solving:** I worked with research supervisors and technical teams in two countries (France and Lebanon) to build, troubleshoot and optimize experimental setups, a skill transferable to solving customer issues in a sales environment.
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Additional Experience

Waiter at Playroom Comedy Theatre, Jdeidet, Lebanon
2016 - 2017

Waiter at Cèdrus, Becharre, Lebanon
2012 - 2013

Waiter at L'Auberge Des Cèdres, Becharre, Lebanon
2008 - 2012

- I have developed strong customer service skills through regular interaction with customers, managing orders and meeting customer needs in fast-paced environments.
 - I have developed interpersonal communication skills through daily engagement with customers, responding effectively to their requests and ensuring a positive customer experience, which is essential to long-term customer relationships.
 - I have gained experience in problem solving under pressure to ensure customer satisfaction whilst maintaining service standards.
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Education

Ph.D. in Material Science (2019 – 2022)
University of Franche-Comté and FEMTO-ST CNRS Laboratory, France

Master 2 in Nanoscience and Functional Materials (2016 – 2017)
Lebanese University, Faculty of Science, Lebanon
Rank: 2/9

Master in General Physics (2015 – 2016)
Lebanese University, Faculty of Science, Lebanon
Rank: 1/25

Bachelor's Degree in General Physics (2012 – 2015)
Lebanese University, Faculty of Science, Lebanon
Rank: 1/70

Skills

Technical Expertise

- **Advanced:** AFM, STM, UHV systems, materials science applications
- **Foundational:** SEM, TEM

Sales & Communication

- **Client-focused:** Building and maintaining strong client relationships.

- **Effective communication:** Clearly explaining complex technical details to diverse audiences.
- **Technical understanding:** Understanding the technical aspects of complex equipment intended for advanced scientific research.

Soft Skills

- **Problem-solving:** Identifying and resolving technical issues.
- **Adaptability:** Adjusting to new work environments and challenges.
- **Teamwork:** Collaborate with colleagues based on a common vision to achieve organizational goals.
- **Attention to detail:** Ensuring accuracy and precision in technical tasks.

Languages

- **French:** Advanced
- **English:** Advanced
- **Arabic:** Native

Publications

- **Growth mechanism of chevron graphene nanoribbons on (111)-oriented coinage metal surfaces**, *J. Phys. Chem. C* 2024, 128 (21), 8601–8610
- **Activation, Transportation, and Reaction of Alkyl Radicals on a Si(111)-B Surface by a Scanning Tunneling Microscope Tip**, *J. Phys. Chem. C* 2023, 127 (12)
- **Dissociation of N₂ on a Si(111)-7x7 surface at room temperature**, *ChemPhysChem* 2023, 24 (15)
- **On-Surface Chemistry on Low-Reactive Surfaces**, *Chemistry* 2022, 4 (3)
- **On-surface reactivity of disubstituted-bianthryl molecules on Cu(111) and Au(111) surfaces**, *Solid State Sci. Technol.* 2022, 11 (3)
- **On-Surface Synthesis of Ligands to Elaborate Coordination Polymers on an Au(111) Surface**, *Nanomaterials* 2021, 11 (8)
- **Unravelling the Growth Mechanism of (3,1) Graphene Nanoribbons on a Cu(111) Surface**, *Chem. Commun.* 2021, 57 (49), 6043–6045
- **Collective Radical Oligomerisation Induced by STM tip on a Silicon Surface**, *Nanoscale* 2021, 13 (1), 349–354

Conferences and Presentations

2024

- Poster at OSS22 International Conference, Spain
- Poster at Forum des Microscopie à Sondes Locales, France (Best Poster Award)

2023

- Oral Presentation at GDR-NS-CPU, France
- Poster at Forum des Microscopie à Sondes Locales, France

2022

- Poster at 747. WE-HERAEUS-SEMINAR, Germany
- Poster at OSS22 International Conference, Spain
- Oral Presentation at ELECMOL International Conference, France
- Poster at ELECMOL International Conference, France
- Oral Presentation at Forum des Microscopie à Sondes Locales, France

References

- **Professor Frank Palmino**
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- **Dr. Frédéric Chérioux**
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- **Professor Christian Loppacher**
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