Cheick Oumar DIARRA

R&D engineer in materials science

Doctor in material science, I am passionate about applied research and motivated to tackle industrial challenges. Rigorous and curious, I seek to contribute to innovative projects.

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Core business

PHASE 1

Skill development

Throughout my life, I have been determined to continuously develop new skills, whether through formal training or self-teaching. For instance, during my thesis, I recognized the necessity of mastering a programming language to advance my research. I immediately took the initiative to learn it, leveraging online resources such as OpenClassrooms and seeking guidance from knowledgeable peers. This proactive approach enabled me to efficiently implement the programming tools required for my project and achieve my research objectives. This experience reflects my ability to adapt, identify skill gaps, and acquire new competencies to meet professional challenges effectively.

PHASE 2

Evaluation

During my thesis, I regularly evaluated and synthesized existing literature in my field to ensure my research was grounded in a robust foundation. By critically analyzing the strengths and limitations of previous studies, I identified key knowledge gaps and proposed innovative methodologies to address specific challenges in physics. This evaluation process not only allowed me to situate my research within the broader scientific context but also contributed to advancing the field through well-informed, creative solutions. My ability to critically assess, prioritize, and integrate complex information equips me with the skills to tackle challenges with a strategic and forward-thinking perspective, both in research and beyond.

PHASE 1

Information management

During my thesis and previous research internships, I consistently demonstrated strong information management skills by conducting comprehensive state-of-the-art reviews. Leveraging resources like Google Scholar, ResearchGate, and the University of Strasbourg library, I systematically gathered relevant information. Using Zotero, I categorized over 100 key articles and books by theme, enabling quick retrieval and efficient management of sources. This approach not only streamlined my research process but also ensured thorough organization and accessibility of materials. These skills are highly transferable to managing complex data and projects in diverse professional contexts, ensuring structured and effective outcomes.

PHASE 2

Expertise and methods

The primary objective of my thesis was to develop a tailor-made methodology for the team I worked with. To achieve this, I stayed consistently up to date with the latest scientific advancements and publications relevant to my field. Additionally, I collaborated closely with experimentalists and experts from other disciplines, which greatly enriched my methodological approaches. These exchanges, particularly during events such as the French Photonics Day held in Strasbourg, allowed me to refine my methods and ensure their scientific and practical relevance. This experience equipped me with strong skills in scientific monitoring, interdisciplinary communication, and designing methodological solutions tailored to the specific needs of the team.

Personal and relational qualities

PHASE 1 **Communication**

During my thesis, I presented my work on numerous occasions, including at the international E-MRS conference (in English) and the SPIC congress held in Saint-Malo. I regularly communicated my research in both English and French to diverse audiences, ranging from physicists to biologists and chemists. Additionally, my active participation in team meetings and consortium discussions with collaborating laboratories not only honed my presentation skills but also deepened my knowledge of my field. These experiences allowed me to adapt my communication style to suit various audiences, whether they were specialized researchers or interdisciplinary groups, ensuring my messages were clear and impactful.

PHASE 2 **Analysis, synthesis and critical thinking**

Pendant ma thèse, j'ai été amener à analyser mes résultats, à les synthétiser

PHASE 1 **Open-mindedness and creativity**

PHASE 1 **Commitment**

PHASE 1 **Integrity**

PHASE 1 **Balance**

PHASE 1 **Listening and empathy**

Business management and value creation

PHASE 1 **Project management**

PHASE 1 **Managing change**

PHASE 1 **Managing risks**

PHASE 1 **Decision-making**