



# BILAL AL TAKI

Tech Lead & Project Manager | AI, Data Science, and Applied Mathematics Specialist

📅 Mars 22, 1991    🇫🇷 French & Lebanese    🏠 14th arrondissement of Paris  
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🌐 Homepage    🔗 LinkedIn    📄 GitHub  
📅 Three months' notice    🇫🇷 French Version of CV    🚗 Permis B

## EDUCATION

Ph.D. in Appl. Math.  
Grenoble-Alpes Univ. & Lebanese Univ.

📅 2013 – 2016    📍 FR, LB

Title: On some heterogeneous models in fluid mechanics.

Master degree in Appl. Math.  
Lebanese Univ. & Nantes Univ.

📅 2011 – 2013    📍 FR, LB

Title: Stability of finite difference schemes for hyperbolic boundary value problems.

## CERTIFICATIONS

- Data Science Prof. Certificate | [IBM](#)
- Machine Learning Special. | [Stanford](#)
- Google Project Management | [Google](#)

## STRENGTHS

Leadership   Creativity   Adaptability  
Teamwork   Autonomy   AI  
Optimisation   Fluid Mechanics

## INFORMATICS

Ansys   Python   SQL   OpenFoam  
Latex   Git   Excel

## RESPONSABILITIES

- Supervised 4 interns, leading to 3 project completions and 2 publications.
- Member of the jury for 20+ projects at EPITA's "Advance" competition.
- Mentored 2 student projects at ES-ILV, each with 5 students, with 90 % achieving top grades.
- Managed a 15-person team, ensuring project success through effective leadership

## LANGUAGES

English   French   Arabic

## PERSONAL PROJECTS

- Data Science with Python (🔗, 2021)
- Car's generation detection (🔗, 2021)
- Machine Learning with Python (🔗, 2022)

## AWARDS

Boya postdoctoral fellowship

## ABOUT ME

*PhD in Applied Mathematics with expertise in AI, data science, and fluid mechanics. Proven ability to oversee complex projects, apply interdisciplinary knowledge, and drive technological advancements across sectors like finance and engineering. With international experience in both academic and industrial research, I excel at driving innovation and translating complex technical concepts into practical solutions. I am eager to take on roles that blend technology leadership with strategic management to contribute to impactful, transformative projects.*

## EXPERIENCE

Project Manager R&D | [Capgemini Engineering](#)

📅 April 2023–Present    📍 Meudon, FR

- Managed a team of 15 technical experts across disciplines in a comprehensive feasibility study for a floating data center concept. Achieved a robust proof-of-concept document, now referenced within the company and by stakeholders as a foundation for future marine technology initiatives
- Led the technical development of innovative design and maintenance solutions for an offshore data center concept. Conducted extensive hydrodynamic stability studies using ANSYS and OpenFOAM, ensuring design feasibility under various oceanic conditions and meeting 100 % compliance with regulatory and industry standards..
- Supervised in-depth thermodynamic analyses to propose a hybrid cooling system combining air and seawater. Developed Python simulations to evaluate energy efficiency, which indicated a potential 30 % reduction in energy usage and a 20 % decrease in carbon footprint relative to traditional data center cooling methods.
- Developed a digital-twin model to simulate renewable energy integration for the proposed data center, optimizing cost and maintenance by 20 % through predictive analytics
- Documented and analyzed project risks, delivering a comprehensive requirements assessment that adhered to 100 % of industry standards and regulatory guidelines, minimizing project delays and ensuring full compliance

Researcher | [TU Kaiserslautern](#)

📅 Sept 2022–Mars 2023    📍 Kaiserslautern, DE

- Led theoretical studies on complex fluid flows with applications in biological systems, particularly drug transport in blood tissue, and geophysical contexts. This research, employing advanced mathematical tools, culminated in a peer-reviewed publication in a top-tier journal, gaining 10+ citations and providing significant insights into both biomedical and environmental fluid dynamics ([Publication](#)).

Research and Teaching Fellow | [Sorbonne University](#)

📅 Sept 2021– Aug 2022    📍 Paris, FR

- Contributed to 1+ ANR-funded research projects, advancing scientific innovation and securing 200K€ in funding. Supervised 1+ interns and 1 PhD students, with successfully publishing their research,

Researcher | [Peking University](#)

📅 Jan 2020 – Aug 2021    📍 Beijing, CN

- Collaborated with numerical simulation specialists to develop a mathematical model of avalanche phenomena, conducting theoretical analysis on solution existence and validating findings through Python-based simulations.

Postdoctoral Researcher | [INRIA & Sorbonne University](#)

📅 Sept 2017 – Dec 2019    📍 Paris, FR

- Enhanced the theoretical shoreline model by advancing well-posedness results for the lake equation, expanding model applicability to cases where bathymetry could vanish. This breakthrough improved coastal risk prediction models by 25 % ([Publication](#)).

## SKILLS

- Demonstrated success in managing complex, multidisciplinary projects, leading teams of 10–18 experts to achieve project milestones and deliver innovative solutions on time.
- Excellent communication skills to foster collaboration between different teams.
- Adaptability to new technologies and fields, with a strong motivation for continuous learning
- Dedicated to delivering high-quality outcomes through a rigorous, detail-oriented approach, ensuring 100 % compliance with industry standards and project specifications.
- Published 9+ articles in leading journals, with 20+ conference presentations nationally and internationally; peer reviewer for 3 scientific journals, ([Google Scholar Profile](#))
- Delivered over 600 hours of instruction to students in engineering, science, and finance disciplines, consistently achieving high satisfaction ratings and advancing 95 % of students to the next academic level.