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SPUERKEESS
Luxembourg

Ref: NRM2339 - Quantitative Analysts – Model Risk Management (m/f)

Dear Hiring Manager,

I am writing to apply for the role of Quantitative Analyst in Model Risk Management as advertised, and I believe my strong academic background and professional experience make me an ideal candidate for this position.

I hold a Ph.D. in Mathematics from Université Paris-Est, where my research was primarily focused on probability theory, stochastic processes, and statistical models, all of which are highly relevant to credit risk and market risk modeling. My work has resulted in 21 peer-reviewed papers, several of which deal directly with risk metrics such as Value at Risk (VaR) and Expected Shortfall (ES). This academic background is strengthened by a 10-year-long journey in quantitative research, teaching, and consulting, with a current role as a Researcher and Lecturer in Data Science at Brunel University, London.

In my most recent role, I have been involved in quantitative courses covering machine learning, time series analysis, and stochastic calculus, to name a few. I am also currently supervising a Ph.D. student who is researching credit risk modeling using Hawkes processes, which should resonate well with the IRB and IFRS 9 requirements specified in the job description.

I have extensive experience with various stochastic models used in quantitative risk management, such as GARCH, EWMA, and Point Processes. While I am not an in-depth expert in regulatory frameworks governing financial institutions, I possess a foundational understanding of key regulations such as CRR, and I have successfully applied various aspects of these regulations in the context of model risk management in a blog post. I am committed to continuous learning and skill development in this pivotal aspect. My technical prowess extends to programming skills with mastery in Python and proficiency in R, SAS, and SQL. I have used these tools for modeling data and conducting analyses in my previous roles as an EPSRC Postdoctoral Researcher at the University of Bath and an FNR Luxembourg-Singapore bilateral researcher.

Professionally, I have consulted for the NHS Rheumatology in Bath, where I developed machine learning models for damage detection in Psoriatic Arthritis. In addition, I developed a project on toxin diagnosis by cellular morphology for the Defence Data Research Centre and Alan Turing Institute in Exeter. These experiences have fortified my ability to handle real-world applications of mathematical models, thereby aligning with the bank's focus on practical risk management.

Being bilingual in English and Chinese and having a level C1 proficiency in French, I meet the language requirements for the role. As someone deeply passionate about sharing knowledge and fostering teamwork, I believe I align well with the transversal skills sought in your job description.

I am excited by the opportunity to bring my unique blend of skills and experience to your organization. I am particularly attracted to this role because it not only allows me to apply my academic learnings to real-world problems in the finance industry but also brings me closer to my personal goal of relocating to Luxembourg, where my wife resides.

Enclosed are my curriculum vitae and copies of my diplomas for your review. I look forward to the possibility of discussing my application with you further.

Thank you for considering my application. I am available for an interview at your earliest convenience.

Yours sincerely,

Dr. Xiaochuan Yang