## **Christopher Richardson**

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Dear Sir or Madam,

Through my postdoctoral work, education, and personal interests I have cultivated a deep and broad knowledge base. I can therefore approach a problem or project from many angles using my skills in programming, research, and communication, as well more utilitarian, hands-on, skills. Consequently, it seems like a natural progression from my current job as postdoc researcher in quantum physics to a career in quantitative finance, a field which leverages all those same skills. Additionally, I find the financial world fascinating and full of possibility. I will be available in October 2014 when my two year contract with the University of Liege ends at which point I would like to commit to a position and a company at which I can build a lasting career.

Programming has been part of my work and research for a very long time and I am proficient in Java, C++, C#, Python, SQL, etc. I am well versed in object oriented, multithreaded programming techniques, source control with Git, and database manipulation. I am quite competent with Mathematica and often use it to work through and visualize problems before I commit to a programming solution. I have used these programming skills for work in web and database programming, numerical analysis of differential equations, and modeling of complex systems. I am currently running through derivative valuation methods using finite difference and Monte Carlo approaches using Python and GPU parallelization with OpenCL.

I work well in a team and have excellent communication skills. This has been crucial in my physics work since collaborations and presentations are absolutely necessary for scientific progress. Because of these skills I have been successful in leading teams of peers as well as yunior students to produce published scientific works. On account of small internal presentations being very frequent and larger international presentations being not uncommon, I have developed proficiency and confidence communicating verbally to any size of audience. Written communication is also very important for collaboration and my writing skills can be seen in my peer-reviewed publications.

In addition to my analytic expertise I can also work in more physically immediate fields. I can design and build both digital and analog circuits and enjoy doing so. I have signal processing and data visualization experience from my experimental research on the T2K project and from my own hobbies such as building tube amps, speakers and a Megasquirt unit to control spark and fuel for a car. I am also quite familiar with a toolbox and am a decent mechanic.

I am open to travel and am a US citizen.

Thank you for your consideration.

I look forward to hearing from you.

Sincerely,

## **Christopher Richardson**