Ramiro **Vignolo**

Nuclear Engineer · Lead Quantitative Analyst & Developer

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Company Recruitment Team

June 29, 2021

Seaborg Technologies
Titangade 11
2200 Copenhagen N, Denmark

Job Application for Nuclear Engineer

Dear Sir / Madam

I am writing this letter to apply for a 'Nuclear Engineer' position within Seaborg Technologies. I strongly feel that my qualifications and experience make me a resourceful candidate for a disruptive and forward-thinking company such as Seaborg.

As you can see in my attached CV, I am a Nuclear Engineer with more than seven years of experience in mathematical modeling, numerical simulation, and programming for solving scientific problems in a wide variety of domains, such as nuclear & reactor physics, heat transfer, and quantitative finance.

Regarding my education, I obtained my degree from the Balseiro Institute, a unique school in Argentina that is known for its high-quality education. On the other hand, I am regularly learning new technologies as well as perfecting my capabilities. I enjoy learning new things and teaching what I have already understood.

Since I finished my University studies, I started working for the Nuclear Industry building software for reactor physics and heat transfer applications. I believe a great way to understand the underlying mechanisms in detail is by developing such complex computational tools, which aid operators and designers of nuclear power plants to fulfill their daily tasks. TECNA, the first company where I worked as a Nuclear Engineer, was mainly focused on the Oil & Gas Industry. However, there was a Nuclear Engineering Department formed by three colleagues and me. Even though we were a small team, we had important contracts within the industry that translated to a lot of responsibilities from the beginning of my career. These contracts were focused on developing many computational libraries for Atucha I, Atucha II, and Embalse Nuclear Power Plants. In BESNA, the second company where I worked as a Nuclear Engineer, I developed a two-phase flow computational tool for the helically coiled steam generators of the CAREM25 Nuclear Power Plant.

At the beginning of 2018, I decided to shift to a different domain because of the context of the Nuclear Sector in my country. I started working as a Quantitative Analyst in the Financial Industry, which has many points in common with what I was previously doing: building computational libraries for solving complex scientific problems. This is an example that gives an idea of my character, showing that I was capable of adapting to new challenges and become proficient in new domains if needed.

Even though I made this career change, I kept building open source software for nuclear applications because it is my true passion. There are many examples in my GitHub repositories, including ray tracing algorithms, neutron transport approximations, or two-phase flow computations.

I am fully aware that the current 'Nuclear Engineer' open position does not completely match my background. But I would love to have a chance to work with you if there is an opening for a Nuclear Engineer with similar credentials to mine. I am passionate, and I think of myself as a kind person that is always open to feedback. Also, another important reason why I am considering working at Seaborg is to have the opportunity to live in such a beautiful country working with international colleagues.

Sincerely,

Ramiro Vignolo