My name is Niyaz Ismagilov, I’m working for Gazprom neft, one of Russia's major oil companies. At my current position I’m leading quantum computing technology development in our company. We are discovering QC applications for our business problems.

I know Ivan from our joint work on a small research project in the field of quantum computing. The project aim was to build a quantum computing solution to a practical problem of drilling rig logistics. In its core this problem reduces to the mathematical problem of a multi-traveling salesman with time windows. During this work, Ivan perfectly understood the intricacies of launching and testing quantum algorithms using simulators and aт IBM cloud system. Research work was also done to find a state-of-the-art solution to the problem and evaluate the applicability of each of the solutions found to the case of a real problem. Many heuristic algorithms were considered that are applicable on classical computers and a class of quantum algorithms that solves the problem through the QUBO (quadratic unconstrained binary optimization) formulation. Such as VQE and QAOA. One of these formulations to the problem was considered (Route based formulation), and tested. Ivan did an excellent job with all the assigned tasks. The work done gave Ivan a feel for how work with quantum algorithms looks like. How to look for quantum-inspired algorithms. And how to test their applicability on real industrial tasks.

Ivan also participated in our weekly team workshops on the study of quantum information from the book “Quantum Computation and Quantum Information” by Nielsen and Chuang. Not only he acquired base necessary knowledge for research work in the field of quantum information and quantum noise, but he helped us to a deeper understanding of material.

During the joint work Ivan showed great interest in the field of quantum computing. He was proactive and did most of the work on his own, relying on our weekly meetings of our research team. I’m greatly satisfied with Ivan's work.

Overall, I would definitely recommend Ivan for a research position. He already has a good knowledge in quantum computing and will add a lot to your institution.

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