

How I Can Contribute to Nikko Co. Ltd.

Nikko Co. Ltd. stands out for the way it uses technology and innovation to improve industrial processes and infrastructure. As a chemical engineering student interested in combining software with process knowledge, I see this internship as a great chance to apply my skills to real-world systems involving data, efficiency, and optimization.

Through my coursework in **Thermodynamics, Fluid Mechanics, Reaction Engineering, and Process Design**, I have developed a solid understanding of how processes behave under different conditions. These subjects taught me how energy, flow, and reaction rates influence system performance—knowledge that is key to improving plant efficiency. I'm particularly interested in how AI and data-driven software can use this engineering insight to predict behavior, optimize operations, and reduce energy consumption.

In my academic projects, I have used **MATLAB** for simulation and data analysis, learning how mathematical models can be turned into practical computational tools. I also gained experience with **CAD** software for process layouts, which strengthened my precision and visualization skills. Additionally, I have used **Python** in **machine learning** projects, giving me hands-on experience in designing and testing models with real data. During this internship, I aim to build on that foundation to support AI applications in process control and system monitoring.

What I appreciate most about Nikko is its forward-thinking approach—leveraging AI, visualization, and technology to modernize traditional industries. I also admire Japan's unique work culture—the discipline, teamwork, and attention to detail that drive its technological and industrial growth. Experiencing that environment first hand and learning from experienced professionals would be an invaluable opportunity for me to grow both technically and personally.

With my chemical engineering background and experience in software-driven projects, I believe I can contribute to Nikko's work in creating smarter, data-driven, and energy-efficient solutions while gaining meaningful industrial experience in Japan's world-class environment.