

## Internship at NIQO Robotics

Over the summer before senior year, I got the opportunity to do a 3-week Internship at NIQO Robotics - a Bangalore-based startup, that aims to “revolutionize crop care spraying in agriculture through their flagship AI-powered Spot Spray Technology”. The company not only works on software, but also develops retrofittable embedded hardware on spraying booms for tractors. It has built a business model that allows Indian farmers, who traditionally have smaller land holdings and earn less, to still afford their technology and benefit!

At NIQO, I did a three-week internship as a Computer Vision Engineer. During my internship, I was able to:

- Further my knowledge of Python by learning and implementing libraries such as NumPy, Pandas, OpenCV, Pickle, TensorFlow, and PyTorch
- Acquire foundational knowledge of ROS (Robot Operating System) with the Humble Hawksbill installation
- Explore Deep Learning and Neural Networks, even getting the opportunity to develop my own binary classification system
- Apply my coding knowledge to real-life scenarios, gaining experience with transferring data across different files and systems and taking object-oriented programming to a whole new level
- Experience start-up culture, from the hustle and long hours to understanding the value of collaboration within, as well as across, teams
- Develop my independence by living in and learning to navigate a city I had never visited before

I worked under the supervision of Raghul Raghu, a senior Computer Vision Engineer. I also got the opportunity to interact with Jaisimha Rao, the founder and CEO of the company, on multiple occasions and keep him updated on my progress!

This experience has not only enhanced my technical skills but also provided me with a practical understanding of the professional world, an invaluable lesson that goes beyond theoretical knowledge.

To prepare for the internship, I did a variety of courses:

- 'Python for Data Science, AI & Development', offered by IBM
- 'Practical Python for AI Coding 1', offered by Korea Advanced Institute of Science and Technology (KAIST)
- 'Practical Python for AI Coding 2', offered by Korea Advanced Institute of Science and Technology (KAIST)
- 'Neural Networks and Deep Learning', offered by DeepLearning.ai (started prior but finished after the course)

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