

Background

Skyqraft provides smart and sustainable infrastructure inspections using computer vision techniques to detect any dangerous issues for powerlines. We aspire to revolutionize the infrastructure inspection market by making it safer, more efficient, and most importantly, sustainable.

In a fast-growing company like Skyqraft, we are expanding our team as well as expanding to new markets. We offer you a great opportunity to take an active part in the expansion of a great company with a great service. At Skyqraft you will fly high and actively make the world a better place!

Scope

We at Skyqraft are continuously seeking innovative solutions to establish a higher quality product. One of our endeavors includes detecting powerlines from Aerial images taken from drones. These powerlines are basically high/low voltage electricity wires taken from above at a variable distance. The challenging part is that the images are from different environments, taken from different heights. Adding to it, the wires themselves can be of a different color and different thickness. The highlighted lines depict what an optimal solution

would look like:





Thesis Description

The aim of the thesis is to work on potential ideas or design innovative solutions to develop a robust powerline detection algorithm that can handle uncertainty. The goal is to produce reliable results when detecting lines of interest in an image. For our case it will always be detecting powerlines of interest. Some methods that we are interested in include (but not limited to) pulse coupled neural filters (PCNF), edge maps, hough line detections. The outcome should give the best possible estimation given our noisy backgrounds.

Profile

We are looking for master students with experience/knowledge in Computer Vision and/or Deep learning with great interest in the area. Having a curious mindset with an eye on quality is a plus.

The work will start in January 2021 (flexible) with a duration of 20 weeks. For Questions

COME JOIN US

We welcome people from all backgrounds who see sustainability as an important value. If you have the curiosity, passion, and collaborative spirit, work with us, and let's do this together! It will be fun! We Promise!

Please send your CV to info@skygraft.com. For questions, you are welcome to contact:
Umar Chughtai, CTO, umar.chughtai@skygraft.com

