



Deep Learning and Computer Vision Scientist

Description

Sentera is a leading developer and supplier of integrated analytics and sensors for precision agriculture. Based out of Minneapolis, Minnesota, Sentera builds specialized cameras, software, analytics, and drones to capture and analyze images of farm fields, providing actionable information to agronomists, growers, and researchers.

Sentera is seeking a full-time candidate with knowledge, experience, and interest in the fields of Machine Learning and Computer Vision with an emphasis in deep learning on images. The candidate will apply these skills toward analyzing images of farm fields captured by drones.

You will focus on analyzing images of farm fields captured by drones to extract meaningful information. Specifically, you will use deep learning techniques for object detection, object classification, and semantic segmentation. The ideal candidate has broad knowledge of convolution neural network topologies and experience in their implementation, training, and deployment. You will manage data collection, annotation, network design, model training, and model deployment.

The ideal candidate is curious, analytical, and scientific minded, always demanding answers to the question "why?", even when it forces venturing beyond the candidate's core field. We are seeking someone with equal passion for the theoretical and the practical, with an aptitude for taking the most promising ideas and converting them to practical implementations that can be deployed to the masses. You should be self-motivated and ambitious, eager to participate in developing an incremental plan for tackling a large technical problem, rather than waiting for a detailed to-do list. Confidence in written and verbal discussion of complex technical ideas with both technical and non-technical customers is a must.

Duties

- Select and design network topologies for object detection, object classification, and semantic segmentation of images.
- Specify and oversee data collection.
- Specify, facilitate, and oversee data annotation.
- Train networks.
- Develop an active learning pipeline for the fast incorporation of new data in to deep learning models.
- Work with software team to deploy trained models to production environment.
- Work with the agronomy team to develop high level algorithms that convert information extracted from images into recommendations for farmers.



Qualifications

- The candidate should hold a Masters or PhD in one of the following fields, or have several years of experience in deep learning:
 - Computer Engineering
 - Computer Science
 - Electrical Engineering
 - Mathematics
 - Physics
 - Statistics
 - Robotics
- Industry experience is viewed favorably, but not required.

Skills

The following is a list of preferred skills. While all beneficial, not all are required.

- Deep Learning
- Convolutional Neural Networks
- Machine Learning
- Object Detection
- Object Classification
- Semantic Segmentation
- Experience in practical implementation of model, deployed to end users
- C/C++
- Python
- Image Processing
- Computer Vision
- TensorFlow
- Keras
- Model Pruning
- Model Quantization
- OpenCV
- Geographic Information Systems (GIS)
- Geospatial Data Processing
- Farming

Details

Travel: Yes, not to exceed 20%

Worksite location: Main Office in Richfield, MN. Applications to work remotely will not be considered.

FLSA and Job Status: Exempt, Full-Time

Applicants must currently be authorized to work in the United States. This position is not eligible for Visa sponsorship.



What we Offer

Full benefit package:

- 100% employee covered medical insurance.
- Additional plan options for family medical coverage at a competitive monthly rate.
- Dental, vision, HSA, FSA, Dependent Care options available.
- 401(K) with a generous 4% company match.

Time off:

- 120 hours PTO at hire
- All U.S. federal holidays are paid time off holidays

How to Apply

We prefer interested candidates visit our website, www.sentera.com/careers and apply within our job description listed. Directions on how to apply are shown on the job description.

No phone calls or walk-ins please.