Machine Learning/AI Engineer (Computer Vision focus)

Pittsburgh, PA | Onsite | Full-time | Department: Perception

Reports to	Perception Lead	**Team**	Robot Vision
Level	Mid-Level	**Travel**	Up to 15%
Posting date	February 24, 2026	**Start window**	Next 6-12 weeks

About the company

Kestrel Robotics builds robotics automation for warehouse operations. Our teams ship software frequently, measure outcomes, and invest in reliability and security. You will build perception models that help robots navigate and understand items in dynamic environments.

Role summary

Build computer-vision models and services that power visual understanding in our products. You will work on data pipelines, training, evaluation, and real-time inference.

What you will do

- Develop and train CV models (detection, segmentation, tracking, OCR) and evaluate on real-world datasets
- Design data pipelines for image/video ingestion, labeling, and augmentation
- Optimize models for production: latency, throughput, memory, and edge constraints where needed
- Integrate vision models into APIs and downstream systems; create robust monitoring and alerting
- Run experiments and ablations; publish internal reports and share learnings with the team
- Collaborate with hardware, robotics, or mobile teams (role dependent) for deployment

What we are looking for

Required

- 3+ years of experience with computer vision and deep learning
- Strong Python and PyTorch/TensorFlow; practical experience with OpenCV
- Experience with CV datasets, annotation workflows, and evaluation metrics (mAP, IoU, F1)
- Experience deploying models (GPU/CPU, real-time inference, batch processing)
- Ability to debug data and model issues and communicate findings clearly

Preferred

- Experience with ONNX/TensorRT or other inference optimization toolchains
- Experience with multi-camera systems, calibration, or 3D geometry
- Experience with edge deployment (Jetson, mobile) and quantization

Tech stack (typical)

Python, PyTorch, OpenCV, CUDA (optional), ONNX/TensorRT, Docker, Kubernetes; ROS2 (integration), multi-camera pipelines, TensorRT

Success looks like (first 90 days)

- Deliver an end-to-end model improvement with an agreed evaluation plan and measurable lift
- Harden a training or inference pipeline (tests, monitoring, runbooks) and reduce operational toil
- Partner with product to define a rollout plan; participate in an A/B test or controlled launch
- Mentor a junior engineer through at least one project milestone

Compensation & benefits

Base salary range: $165,000 - $215,000 per year. Includes eligibility for bonus depending on level. Final offer depends on experience, skills, and location.

- Competitive salary and annual bonus or equity (role dependent)
- Medical, dental, and vision coverage
- 401(k) or local retirement plan with employer match (where applicable)
- Flexible PTO and paid holidays
- Learning budget for courses, conferences, and books
- Home-office/remote-work stipend (where applicable)

Interview process

- Intro call with Talent Partner (20-30 min)
- Technical screen (coding + ML/system fundamentals)
- Onsite/virtual loop (2-4 interviews: ML, systems, product, collaboration)
- Final conversation with hiring manager
- Onsite practical (whiteboard + system design) (60 min)

We are an equal opportunity employer. All qualified applicants will receive consideration without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, veteran status, or any other legally protected status.

If you require an accommodation during the application or interview process, please let us know. We will work with you to meet your needs.