PLASMA ORBITAL ®

AI (Computer Vision) Research Engineer

Build the AI for our first orbital demonstration.

Plasma Orbital · London, UK · Hybrid
Six-month contract · Full-time · Potential permanent founding engineer role
Compensation: Competitive contract rate, based on experience
www.plasmaorbital.com

Plasma Orbital is a London-based, VC-backed space technology startup building AI-powered microsatellite fleets for real-time maritime monitoring. Our mission is to enable faster detection of maritime threats, using onboard AI to deliver actionable intelligence directly from orbit. Following an oversubscribed early investment round, we're preparing for our next milestone: demonstrating our AI on a partner satellite in Q2 2027.

We're looking for an exceptional AI research engineer to lead the computer vision development behind this mission.

The Role

You'll develop robust computer vision models capable of detecting, localising and classifying maritime targets in satellite imagery, working across the full machine learning lifecycle, from dataset preparation and model development to evaluation and optimisation for resource-constrained satellite hardware.

This is a hands-on engineering role with substantial ownership of AI models designed to operate in orbit.

What You'll Do

Develop computer vision models and datasets

- Develop, train and fine-tune deep learning models for maritime object detection and classification in satellite imagery.
- Explore modern computer vision architectures, including CNNs, vision transformers and efficient detection approaches.
- Improve detection of small, partially obscured and low-visibility maritime targets across varying imaging and environmental conditions.

- Source, curate and annotate satellite imagery, leveraging synthetic data, transfer learning and augmentation to address limited labelled data.

Evaluate and improve model performance

- Evaluate precision, recall, false-alarm rates and detection performance across target types and sizes.
- Test robustness against sea clutter, cloud cover, varying environmental conditions and domain shift.
- Conduct error analysis to improve detection sensitivity while minimising false positives.

Optimise AI for onboard deployment

- Develop and optimise models for resource-constrained onboard inference using NVIDIA GPU-based computing platforms, applying techniques such as quantisation, pruning and knowledge distillation.
- Benchmark inference latency, memory usage and computational efficiency against flight-hardware constraints.
- Collaborate with space systems and embedded engineering teams on AI-PPU integration, testing and validation ahead of orbital demonstrations.
- Develop and maintain production-quality Python and machine learning code.

What We're Looking For

Essential qualifications

- Bachelor's or Master's degree in Computer Science, AI, Robotics, Electrical Engineering or a related field, or equivalent practical experience.
- Strong proficiency in Python and deep learning frameworks such as PyTorch or TensorFlow.
- Hands-on experience developing, training and evaluating computer vision models, particularly for object detection and classification.
- Experience with NVIDIA GPU-based model development and optimisation.
- Strong understanding of deep learning and experimental evaluation.

Desirable experience

- Experience working with satellite imagery, remote sensing or geospatial datasets.
- Familiarity with NVIDIA CUDA, TensorRT or edge AI deployment.
- Research publications, open-source contributions or demonstrated experience developing novel computer vision approaches.

Why Join Plasma Orbital?

- **Build AI that flies:** Develop computer vision models that will be tested in orbit, not just in the lab.
- **Build alongside people who've done it before:** Work directly with a founding team that brings together PhD-level expertise and proven experience developing AI systems already flown in space.
- **Build the future:** Our ambition goes beyond maritime surveillance. We're building an AI-powered orbital monitoring layer for the entire planet.

Pathway to Founding Engineering Lead (AI) Role

This six-month, full-time contract offers a potential pathway to a permanent Founding Engineering Lead (AI) role, leading the development of the AI technology stack powering our future satellite fleets.

For the right candidate, this means helping build the engineering team, shaping our long-term technical direction and participating in the company's growth through equity, subject to mutual fit and company progress.

How to Apply

Send your CV and a brief introduction, along with links to relevant GitHub repositories, research projects or previous computer vision work, to **careers@plasmaorbital.com**.

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