Machine Learning Engineer

Estimation and Learning · Series A Team · AUX-ENG-SA-04

Reference	AUX-ENG-SA-04	**Level**	Mid to senior, 5+ years
Reports to	Dr. Mamdouh Yanni, Founder and CTO	**Location**	On site in Dubai, at the first service bay and the pilot workshops
Employment	Full time, UAE employment contract	**Start**	From our Series A round

About Auxionetics

Auxionetics Artificial Intelligence L.L.C S.O.C is an IP-led robotics company in Dubai. Our patent-pending technology aims to let people and robots work safely side by side, and its first use will be the Smart Robot Mechanic: a car-service bay in which two collaborative arms will take on the repetitive, physically demanding work while a skilled technician stays in charge of every job. Six US patent applications and an international (PCT) application have been filed. We will run our own workshops in Dubai and license our Human-Robot Collaboration platform once it runs reliably in daily operation.

Why this role matters

Every job the bay performs produces data. You will turn that data into better robots: models that estimate what is happening during a service, detect anomalies early, and help the bay learn from thousands of real vehicles.

What you will own

- **Learning from operations.** Build models from bay data that predict cycle time, detect anomalies and flag jobs that need a technician.
- **Estimation.** Develop state-estimation and system-identification methods for tools, fasteners and fluids.
- **Perception support.** Work with the Perception Engineer on training data and model evaluation.
- **Data pipeline.** Define what data the bay records, its quality checks and labeling, with the Platform Software Engineer.
- **Deployment.** Deploy models safely on embedded compute, with monitoring and rollback.
- **Evidence.** Measure model performance honestly and document limits and failure modes.

Minimum qualifications

- A degree in computer science, electrical engineering, statistics or a related field.
- 5+ years developing machine-learning models that ran in production on real-world sensor data.
- Strong Python and PyTorch, with sound statistics and experiment design.
- State estimation or system identification.
- Clear written English.

Preferred qualifications

- A master's degree or PhD in machine learning, robotics or control.
- Time-series and anomaly detection.
- Models deployed on embedded GPUs.
- Inertial or force-sensor data.

Your first year

By	What success looks like
3 months	Data plan and pipeline agreed, using data from the pilot workshops.
6 months	Anomaly detection running on live workshop data, with measured precision and recall.
12 months	Models live across the network, improving cycle time and reliability from real jobs.

How we work

- Safety by design. The bay will be engineered to ISO 10218-1/-2:2025 from day one; all work near robotic equipment follows a documented risk assessment and safety induction.
- **Measured, not claimed.** Targets are measured on real vehicles; simulation before hardware, review before merge.
- **Planned tools:** Python, PyTorch, ONNX or TensorRT, experiment tracking, time-series storage.

What we offer

- An early role in a company set to scale its robotic workshops, working closely with a founder who has almost 30 years of engineering experience, including 12 in Silicon Valley.
- Named-inventor recognition for inventions you contribute to.
- A competitive salary; company-paid visa, work permit and health insurance; annual leave and end-of-service gratuity under UAE law.

Conditions. Every offer is conditional on the close of our Series A round, satisfactory checks, a UAE work permit, and an agreement assigning to the company the IP created in employment.

> **How to apply.** Email your CV and a short note on the most relevant model you have taken into production to careers@auxionetics.com, quoting AUX-ENG-SA-04. Shortlisted candidates will have a technical interview and a practical modeling exercise with Dr. Mamdouh Yanni. CVs are used only for recruitment and deleted within 12 months unless the candidate joins us. **Auxionetics is an equal-opportunity employer** and selects on merit alone.