

## Data and Analytics

For one of our customers in the province "Zeeland" we are looking for an **AI and ML Engineer**.

### Job description

As a (Senior) Image Processing and Machine Learning Design Engineer, you will be responsible for developing and implementing advanced machine learning and image processing algorithms to enhance semiconductor metrology. You will work closely with the Data and Analytics team within the Development & Engineering (D&E) department, contributing to the development of new products by leveraging numerical data-driven methods and physics knowledge.

#### Key Responsibilities:

- ✓ Develop and propose machine-learning models, image processing algorithms, and signal processing techniques to advance optical semiconductor metrology.
- ✓ Implement machine learning and deep learning metrology applications designed for scalable, data-intensive, and distributed software architectures.
- ✓ Design and realize end-to-end subsystems to meet system specifications, cost constraints, and project timelines, contributing directly to products used worldwide.

#### Support Functions:

- ✓ Collaborate with Research department and product application groups to contribute to the invention of new metrology methods and technologies.
- ✓ Stay abreast of the latest advancements in image processing and machine learning.

#### Management & Leadership:

- ✓ Act as a senior engineer guiding R&D efforts at the intersection of metrology data and physical knowledge.
- ✓ Mentor and coach junior team members to foster technical growth within the team.

#### Process & Improvement:

- ✓ Contribute to the technical and competence roadmaps for Image Processing and Machine Learning.
- ✓ Drive process improvements, optimize software architecture, and propose enhancements to metrology applications.

#### Additional Duties:

- ✓ Travel Requirements: No travel required.

### Your qualifications

#### Qualifications and Skills:

- ✓ Education: Ph.D. in Computer Science, Data Science, Mathematics, or Physics.

#### Skills & Experience:

- ✓ 5-8 years of experience in Image or Signal Processing, Machine Learning, and Mathematical

optimization techniques.

- ✓ Experience as a lead author in leading conferences/journals (e.g., CVPR, ICCV, ECCV, NeurIPS).

Technical Skills:

- ✓ Proficiency in Python, Julia, MATLAB, or C++.
- ✓ Familiarity with deep learning frameworks such as JAX, PyTorch, and TensorFlow.
- ✓ Strong understanding of geometric and wave optics, electromagnetic simulations, photonics, and microscopy.
- ✓ Experience with cloud computing and distributed software architecture.

Soft Skills:

- ✓ Strong creative problem-solving skills with a focus on customer and product-oriented solutions.
- ✓ Ability to work decisively and self-initiate in ambiguous environments.
- ✓ Excellent communication skills, with the ability to explain complex models and algorithms clearly.
- ✓ Pragmatic approach with a proactive attitude and a 'can-do' spirit.

Other Requirements:

- ✓ Active participation in online competitions (e.g., Kaggle) is a plus.
- ✓ Must be legally authorized to access controlled technology as per Export Administration Regulations.

## What we offer

[click here for the Conditions.](#)

**Reference:** 3237

**Projectphase:** Maintenance

**Discipline:** Artificial Intelligence (AI), Business Intelligence (BI), Data Science & Analytics

**Position:** Architect, Consultant, Developer

**Function level:** Senior

**Region:** (NL) Zeeland

**Education:** PhD

**Experience:** 8-15 years

**Type of contract:** Project

**Posted at:** 07-08-2024

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