

AI-Developer (gn) CAD-Tools

(15428)

📍 Standort: Berlin 📄 Anstellungsart(en): Vollzeit

Job ist nicht gleich Job. Er soll zu dir passen, dich fordern und angemessen bezahlt sein. Das sehen wir auch so, deswegen bringt PAMEC dich mit den Unternehmen zusammen, die wirklich zu dir passen. Wenn du deinen Job liebst, machen wir unseren richtig – und das seit 1984.

For our renowned client, an established company in the energy technology sector, we are looking for you as a AI-Developer (gn) CAD-Tools

This is what your daily work routine looks like

- Design and implement a parametric and implicit geometry programming framework for turbomachinery components (e.g., turbine blades, vanes), enabling systematic feature variation and high-fidelity shape control
- Build and curate large-scale geometry datasets (including metadata, schemas, and versioning) to train and evaluate an AI foundation model for geometry; ensure data quality, consistency, and IP compliance
- Develop methods to represent geometry for AI (e.g., CAD kernels, constructive solid geometry, signed-distance/field-based models, meshes/point clouds) and evaluate model performance and generalization
- Integrate and automate multi-physics simulation chains (CFD/CHT/FEA) to generate physics-based labels and performance metrics for training and validation, including robust meshing and model setup
- Create surrogate and reduced-order models for thermal and structural performance; link them to design optimization workflows and digital twin concepts
- Implement scalable submission of large simulation batches to HPC/grid environments; optimize pipelines for reliability, throughput, and cost (schedulers, containers, job arrays, CI/CD)
- Collaborate with CAD/CAE, cooling design, and AI teams to capture requirements, validate models, and ensure usability and accuracy of tools in production design environments
- Establish documentation, coding standards, and training materials; mentor users and drive adoption across engineering teams

What makes you suitable for the job

- PhD in Mechanical Engineering, Aerospace Engineering, Computer Science, or a closely related field, with emphasis on geometry processing, CAD/CAE, or thermo-fluids
- Solid understanding of internal cooling for turbine blades (e.g., serpentine channels, impingement, pin-fin arrays, film cooling) and the basics of CHT in turbomachinery
- Strong programming skills: Python and C/C++; proficiency with Linux and GitLab; experience with API-driven CAD/CAE automation (e.g., NX Open, Star-CCM+ macros)
- Experience with AI/ML applied to geometry and/or physics (e.g., mesh/graph neural networks, diffusion models, surrogate modeling), including dataset design, training, and validation at scale
- Familiarity with CFD, CHT, and FEA workflows; ability to set up, automate, and validate simulations for thermal and structural performance

These are your advantages

- Permanent position with option to be hired by the partner company
- Compensation according to the GVP collective agreement with the option of above-tariff allowances, vacation, Christmas bonus, company pension scheme

- "Employee referral bonus" up to 400 €
- Vacation requests / time tracking via app, employee discounts for online shops

Contact details

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Abteilung(en): IT-Administration

[Impressum](#)