Mach42

Machine Learning Researcher

Machine Learning & EDA · Full-Time · Oxford/London/Cambridge/Remote

Level	Senior / Staff
Reports to	VP Engineering
Location	Oxford, London, Cambridge UK (Hybrid) or Remote

Mach42 is a venture-funded startup at the intersection of machine learning and Electronic Design Automation (EDA). We are developing ground-breaking machine learning tools set to revolutionise the verification of complex integrated circuits – helping chip design teams accelerate simulation coverage, improve product quality and reduce tapeout risk.

THE ROLE

We are looking for a Machine Learning Researcher to contribute to the algorithmic core of our surrogate model technology. You will own research agendas for model architecture, training methodology, and uncertainty quantification, working closely with our engineering team to translate novel ideas into shipped product. This is a high-impact, high-autonomy role for someone who wants their research to matter in silicon.

WHAT YOU'LL DO

- Design and evaluate ML architectures for data-efficient surrogate modelling of analog circuit behaviour.
- Develop training pipelines that handle circuit simulation data with robust generalisation properties.
- Investigate uncertainty quantification and confidence-aware prediction to support commercial IC verification flows.
- Publish and present research and contribute to Mach42's technical reputation.
- Collaborate with Mach42 product and engineering teams to define evaluation benchmarks and translate research findings into production-ready algorithms.
- Stay current with the literature in neural surrogate modelling, scientific ML, and EDA; identify and prototype promising directions.

WHAT WE'RE LOOKING FOR

- First degree in Physics/Engineering/Electronics, PhD in Machine Learning.
- Proficiency in Python and modern Deep Learning frameworks (PyTorch or JAX).
- Strong publication record at ML or EDA conferences.
- Ability to move fluidly between research prototyping and production-quality implementation.
- Clear written and verbal communication — you can explain a novel loss function to an analog designer and a circuit to a machine learning audience.

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NICE TO HAVE

- Experience with modelling dynamic systems.
- Comfort working with SPICE simulation data and familiarity with analog circuit concepts (we'll teach the EDA context).
- Familiarity with behavioural modelling languages and EDA toolchains.
- Prior startup or applied research experience.

WHAT WE OFFER

- Competitive salary, discretionary bonus and meaningful equity in a well-funded, early-stage company.
- Flexible remote / hybrid working with London/Cambridge/Oxford home base(s).
- Support for learning and development.
- Direct access to customers — real analog designers testing your models on real chips.
- A small, senior team where your work ships and you can see its impact.

Mach42 is an equal opportunity employer. We welcome applications from all backgrounds and are committed to building a diverse team.