Type d'offre : Corporate offer

Post date : 03.03.26

Formel AI

Formal Methods Research Scientist

Informations générales

Contract type : Permanent contract

Contract length : CDI

Contact :

careers@formel.ai

Starting date : Wed 01/04/2026 - 12:00

Formel AI :

At Formel AI, we combine the creativity of generative AI with the reliability of mathematical formal methods. By leveraging the verification capabilities of formal methods, such as the Lean 4, we pioneer a new generation of Large Language Models (LLMs) that are reliable, transparent, and cost-efficient. We're honored to have received the 2nd spot of the Innovation Prize from École normale supérieure in Nov 2025.

Formel AI is founded by Sylvain Combettes (CEO) and Antoine Mazarguil (CTO), who met during their PhDs at ENS Paris-Saclay. We closed an oversubscribed angel round in Feb 2026, backed by 30+ top-tier business angels including the founders of Datadog, Dataiku, Nabla, and Artefact. Our scientific advisory board includes Full Professors from Ecole polytechnique, ENS Paris-Saclay, and Ecole des Ponts.

We're now onboarding our first design partners and building the team to make it happen. Come join us!

Address :

Formel AI
75000 Paris
France

Détail de l'offre (poste, mission, profil) :

About the role

We are looking for exceptional individuals to build the innovative bridge that will lead to the next breakthrough in the world of AI: the link between AI and formal methods. With this bridge, we are developing new LLMs that do not hallucinate, are completely transparent, and consume a fraction of the costs of current LLMs.

As a scientist with a strong background in formal methods, your role will be to structure and execute the research and development roadmap, along with experts from multiple fields. You will participate to the many collaborations we are building with important laboratories, while being able to rely on our renowned scientific advisory board.

Key responsibilities

- **Drive research innovation**: Actively shape the company's research roadmap, exploring new leads in applied formal verification in collaboration with our scientific advisory board

- **Bridge theory and practice**: Translate cutting-edge research in formal methods into production-grade systems, explaining complex technical concepts to customers and stakeholders
- **Stay at the forefront of formal methods and intersection with AI**: Monitor cutting-edge research in both formal verification and AI, identifying emerging techniques and tools that could enhance our systems.
- **Build strategic academic partnerships**: Establish and execute collaborations with leading research laboratories in formal methods, creating mutually beneficial relationships that drive innovation

What we are looking for

Essential Qualities

- **Visionary Researcher:** You combine a deep passion for formal literature with the creative insight needed to apply complex, theoretical concepts to real-world scenarios.
- **Methodical Scientist:** You possess the structural discipline and technical mindset required to architect and execute multifaceted research projects from inception to completion.
- **Impact driven:** You excel at bridging the gap between theory and practice, with a natural talent for converting abstract research into functional, high-impact implementations.
- **Scientific Collaborator:** You bring the academic rigor and operational efficiency necessary to foster long-term lab partnerships and author scholarly articles that meet the highest professional standards.

Background

- PhD in formal methods, SMT solver, verification or related topic.
- Expertise with at least one theorem prover.

Required Skills

- **Track record in formal software development**: Proven experience developing formally verified software or using formal methods in software development
- **Adaptability and collaboration:** Drive to stay current with emerging research, learn new methodologies, pivot research directions based on findings, structure R&D collaborations, and write scholarly articles
- **Technical communication:** Skilled in articulating complex ideas clearly through scientific writing, presentations, and collaboration with interdisciplinary teams
- **Theoretical and practical knowledge of SMT solvers**: Deep understanding of both the theory behind SMT solving and hands-on experience implementing or working with SMT solvers

Bonus skills:

- Track record in applied formal methods
- Proficiency in OCaml
- Theoretical and practical knowledge of LLMs

Benefits

- **Financial & perks**
  - Competitive cash salary and equity (BSPCE) in a high-potential company.
  - Health insurance (Alan) for you and your family (partner and kids).
  - Daily lunch vouchers (Swile).
  - Hybrid work model with a strong emphasis on in-office collaboration (typically 3-4 days per week at the office) to foster team cohesion, spontaneous discussions, and deep work together.
- **What makes this role unique**:
  - **Founding team impact**: Join as one of the first employees and shape the trajectory of a moonshot deep-tech company.
  - **Mission-driven startup**: Help solve the key pressing challenges of AI—the most transformative technology of our era—ensuring LLMs are trustworthy, transparent, and cost-effective, with direct benefits for environmental sustainability.

- **Work with cutting-edge technology**: Build systems that combine LLMs with formal verification—an emerging field at the forefront of AI safety and reliability where breakthrough developments happen every week.
- **World-class team**: Collaborate with a scientific advisory board from leading institutions (Ecole polytechnique, ENS Paris-Saclay, etc) and experienced business angels from top tech companies (Datadog, Dataiku, Nabla, Artefact, and more).
- **Strategic customers**: Work with leading companies in healthcare, enterprise software, and other mission-critical domains.
- **Flexibility of an early-stage startup**: Autonomy to define how you work and what you prioritize.

Hiring process

1. Apply and submit your resume using this Google Form
2. **Screening Call (45 min):** A quick chat with the CTO to align on vision and expectations.
3. **In depth technical discussion** (home exercise followed by a 60 min discussion)**:** Best way to decide if we are a great fit as potential collaborators.
4. **Technical Deep-Dive (60 min):** A focus on your profile and background.
5. **Founder Interview (45 min):** Final discussion on strategy, culture fit, and your long-term evolution within the company, with the CTO and CEO.

URL de l'offre :

https://docs.google.com/forms/d/e/1FAIpQLSfvLZeeEiMlhtFWlmd2IbaQ9ghPhYw3r0nSRVHZeJb

Lien vers l'offre sur le site dataia.eu :https://da-cor-dev.peppercube.org/node/1537