

## Postdoc Position in Rational Machine Learning

Saarbrücken, December 9th, 2024

The Rational Intelligence Lab (<https://ri-lab.org/>) at the CISPA Helmholtz Center for Information Security in Saarbrücken, Germany (<https://cispa.de/en>), is seeking a postdoctoral researcher to work in the area of rational machine learning, situated at **the intersection of machine learning and economic theory** with the aim of enhancing the rationality, efficiency, and reliability of intelligent systems. Research topics of interest include, but are not limited to, out-of-distribution generalization, causality, incentive-aware machine learning, distributed and collaborative learning, imprecise probabilistic machine learning, human-AI collaboration, learning with preference and choice data, and learning in games.

For more information on our past and current research, please visit our publications page at <https://ri-lab.org/pubs/>.

### What We Look For

Candidates for this position are expected to hold an excellent PhD in Computer Science, Mathematics, Statistics, Economics, Physics, or a related discipline, with a strong record of publications and a demonstrated interest in publishing in top-tier machine learning venues such as ICML, NeurIPS, EC, UAI, KDD, AAMAS, AAAI, FAccT, ICLR, AISTATS, and JMLR. Candidates with a strong background in Economics, whether theoretical or computational, are especially well-suited for this position and are strongly encouraged to apply.

Candidates are expected to conduct innovative research that integrates concepts from both economics and machine learning with a focus on publishing their findings in top-tier venues at the intersection of these fields.

We are committed to fostering a diverse workforce and strongly encourage applications from individuals in underrepresented communities, including but not limited to women, people of color, LGBTQ+ individuals, persons with disabilities, and those from economically disadvantaged backgrounds.

### What We Offer

Postdocs are full-time employees and are paid and receive benefits according to the E13 scale of the collective salary agreement for civil servants of the federal state (TVöD-Bund). The gross monthly salary, based on 39 hours per week and dependent on relevant experience usually ranges from 4000€ to 6000€. Additional benefits include roughly 6 weeks of paid annual leave; a collectively agreed annual special payment; paid sick leave; as well as maternity and parental leave; the possibility to set up a workplace at home in Germany; a pension scheme; the possibility to follow courses to learn German. The research groups have an adequate annual budget for the members to purchase necessary research equipment and to attend international conferences.

The candidates will have the opportunity to collaborate with other research groups at CISPA (<https://cispa.de/en/research>) and with partners within the Helmholtz AI Cooperation Unit

(<https://www.helmholtz.ai/>). We strongly encourage collaborations with neighboring research institutes at the Saarland Informatics Campus (<https://saarland-informatics-campus.de/en/>) such as Saarland University (UdS), Max Planck Institute for Informatics (MPI-INF), Max Planck Institute for Software Systems (MPI-SWS), Helmholtz Center for Pharmaceutical Research (HIPS), Deutsches Forschungszentrum für Künstliche Intelligenz GmbH (DFKI), as well as the Max Planck Institute for Intelligent Systems (MPI-IS) in Tübingen. International collaborations will be highly appreciated.

Our group is part of the ELLIS Unit Saarbrücken (<https://ellis.eu/units/saarbrucken>).

## About CISPA

The CISPA Helmholtz Center for Information Security provides a unique work environment that offers the advantages of a university department and a research laboratory alike. As the latest member of the Helmholtz Association, the largest research organization in Germany, CISPA has embarked on a mission: to rethink the digitalized world of the future from the ground up and make it safer through innovative cutting-edge research. In the medium term, the center will grow to more than 800 employees with not less than 60 Faculty and research group leaders. Faculty receive extremely competitive institutional funding, enjoy academic freedom, and build and lead their team of young researchers, and are granted the opportunity to teach graduate and undergraduate courses.

At CISPA, there is a growing number of faculty members with strong interests in areas such as machine learning theory, deep learning, optimization, causality, trustworthiness, privacy and security, and robustness among others.

CISPA is located in Saarbrücken, in the tri-border area of Germany, France, and Luxembourg. We maintain an international and diverse work environment and seek applications from outstanding researchers worldwide. **The working language is English.** A command of German is not required for a successful career at CISPA.

## How To Apply

The candidates can apply by sending (1) a cover letter, (2) a CV, and (3) a research statement, together with contact information of at most three references to [muandet@cispa.de](mailto:muandet@cispa.de). The position will remain open until filled. Inquiries about the positions are always welcome.