Chanattan Sok

École normale supérieure de Rennes, 11 avenue Robert Schuman, 35170, Bruz, France

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I am a second year master student in AI, MAS, and decision at Sorbonne University, and at the same time
a fourth-year student at École normale supérieure de Rennes.

Education

Master's degree in Algorithms, Artificial Intelligence, Interactions and Decision (AI2D) - Sorbonne University, Paris, France *Coursework on decision (multi-criteria; in uncertainty), coordination and game theory in MAS, decision-making models, MARL, social choice, mechanism design and auction theory.*	Sept 2025 - June 2026
ENS Diploma in Computer Science - École normale supérieure de Rennes, France	Aug 2022 - Aug 2026
B.Sc. in Fundamentals of Computer Science - ENS Rennes, France	Aug 2022 – Aug 2023

Research Positions

Research assistant at LIP6 (MAS team) | Sorbonne University, Paris, France. Supervised by Nicolas Maudet, and Arianna Novaro. *Research project in parallel to my M2 studies on CS-economics: in progress.* **keywords:** task allocation, game theory	Sept 2025 - February 2025 *Report*
Student researcher at Anticor (Datalab) | Paris, France. Work with Julien Perez, and Anticor lawyers. *Decision-making help with multi-agent LLMs on case studies: agents focus on law-specific reviewing on a user-given case to study, the final agent aggregates and synthesizes a decision.* **keywords:** LLM, deliberation	Aug 2025 - 202X
Research assistant at LAMSADE and CES | Paris Dauphine-PSL, CNRS, France. Supervised by Jérôme Lang, Arianna Novaro, and Florian Sikora. *Measuring fairness in railway networks with graph theory and social choice. Modelled a few EU countries railway network and proposed fairness indices for evaluation.* **keywords:** social choice, graph theory	May 2025 - August 2025 Website, GitHub, *Report*
Research fellow at City Science Lab HCU Hamburg, an MIT Media Lab collaboration and IRD in France | Hamburg, Germany. Supervised by Arnaud Grignard and Rico Herzog. *Modelled an urban digital twin of Hamburg city, focused on buildings CO2 footprints for policy decision-making help, in GAMA. Collaboration with the ministry of Housing and Ecology.* **keywords:** MAS, simulation, urban digital twin	Feb 2025 - May 2025 Slides, *Report*
Research assistant in the *Multi-Robot Systems* team | Inria & INSA Lyon, France. Supervised by Olivier Simonin. *Simulation and resolution of spatial conflicts between pedestrians based on social choice and game theory. Developed a simulation platform for pedestrians' motion in Python and Mesa.* **keywords:** MAS, simulation, game theory, social choice, planning	Sept 2024 - Dec 2024 Paper
Research assistant in *Programming Languages* | Aarhus University, Denmark. Supervised by Magnus Madsen. *Extension of the functional-first Flix language with Java interoperability, in Scala. Proposed Java types' representations and their reduction in type resolving.* **keywords:** programming language design	May 2024 - Aug 2024 GitHub
Research assistant in the *Data Management team*, IRISA | Thales, ENS Rennes, France. Supervised by Laurent d'Orazio. *Proposed a study platform in Rust for performance and time comparisons of Rust-native and Wasm-based join standalone operations in serverless/serverful environments.* **keywords:** webassembly	Sept 2023 – May 2024 Paper
Student research fellow in data management/AI | Anticor, ENS Rennes, France. Work with Julien Perez, and Anticor lawyers. *Created law-related database scheme to help lawyers find public market frauds.* **keywords:** mySQL, pandas, UX	Nov 2023 – May 2024 Press Paper

Research assistant in the *Multi-Agent Systems team* | Sorbonne University, LIP6, France.

May 2022 – July 2023

Supervised by Nicolas Maudet and Aurélie Beynier.
Developed a generic n-choice deliberation simulation platform where agents negotiate, influence and vote with modelled and ranked preferences – based on Putnam's two-level game theory.
keywords: MAS, simulation, deliberation, preferences, game theory

Teaching

- **Referring tutor and founder of the computer science and maths tutoring for bachelor students**, ISTIC - Univ. Rennes, Rennes, France — Sept 2023 - March 2024
- **Guest lecturer on negotiating multi-agent systems**, invited by Pr. Franz Kurfess - Calpoly University, San Luis Obispo, California. — Jan 2024
- **CPES (Cycle Pluridisciplinaire d'Enseignement Supérieur) science tutor in maths and computer science for first year bachelor students** - Lycée Châteaubriand, Rennes — Sept 2023 - March 2024
- **High-school tutor in maths and computer science** - Rennes — Sept 2023 - March 2024
- **Assistant professor in mathematics and physics for middle-school students** - Collège Évariste Galois, Paris. — Sept 2021 - March 2022
- **Private teacher in computer science for students of all ages** - Independent. — 2015 - 2024

Additional Experiences and Activities

Co-president of the oenology club, ENS Rennes	Sept 2023 - March 2024
Founder of Tutorat ISTIC, tutoring program for B.Sc. students, Univ. Rennes	Sept 2023 - March 2024
Finalist in ENS Rennes eloquence competition 2023-2024, ENS Rennes	2023
Winner of a local hackathon (Palm'Hackathon ISTIC 2023), Univ. Rennes	2023
Treasurer of RJMI Rennes 2023 - ENS Rennes	Oct 2022 - March 2023
Participant of the NEGOCLIM project for Economics & CS research, MITI - CNRS	2022 - 202X
Freelance developer - Java Swing/FX, and Python software development, Online	2015 – 2019

Languages

French (native), English (proficient), German (notions)