Adam Chader

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I finish my PhD in december of 2025, and am looking for a **postdoctoral researcher position** in computer science. I am available starting **January 2026**.
I am interested by **language runtimes, operating systems, garbage collection, compilation, networks, memory hardware**.

Projects

- **TeleGC — PHD contribution**
  Institut Polytechnique de Paris *oct 2022 - dec 2025*
  - Design and implementation of TeleGC, a barrier-free garbage collector for disaggregated memory, contribution submitted to ASPLOS'26
  - Designed a garbage collector for the Hotspot Java virtual machine, adapted to memory disaggregation
  - Implemented a Infiniband driver for memory disaggregation, and its interfacing with garbage collection
  - Implemented a mark-sweep garbage collector from scratch outside of the runtime by reverse engineering the JVM
- **Privagic — PHD side-contribution**
  Institut Polytechnique de Paris *nov 2022 - mar 2023*
  - Implementation of experiments, and adaptation of legacy code to be compatible with the prototype, contribution accepted to Middleware'24
- **Rackscale JVM — Research Internship**
  Institut Polytechnique de Paris *febr 2022 - aug 2022*
  - Study performance response of the Java Virtual Machine in a disaggregated memory setup. Develop a garbage collector prototype working fully remotely via memory disaggregation.
- **Degradable Data Structures — Research Project**
  Institut Polytechnique de Paris *sept 2021 - febr 2022*
  - Improving performances of distributed applications by removing bottlenecks created by concurrent memory accesses. The removal of bottlenecks is possible by degrading the specifications of the distributed data structures. Study of Distributed Data Stores (Apache Ignite), and modification of the source code.

Teaching experience

- **Java and algorithms — Lecturer**
  Télécom SudParis, 1st year students *oct 2022 - dec 2025*
  - Introduction to programming languages, and their main concepts, in particular object-oriented
  - Introduction to classical algorithms and data structures, and their complexity
- **C and systems programing — Lecturer**
  Télécom SudParis, 2nd year students *oct 2022 - dec 2025*
  - Low-level programming, interaction with the operating system, compilation toolchain
  - Memory management
- **Bash and operating systems — Teaching assistant**
  Télécom SudParis, 1st year students *oct 2022 - dec 2025*
  - Introduction to Linux, system administration, and bash
  - Introduction to concurrent programming

Education

- **Institut Polytechnique de Paris** Saclay, France
  PhD in computer science (ongoing) *oct 2022 - dec 2025*
- **Institut Polytechnique de Paris** Saclay, France
  *Master of Science in **Parallel and Distributed Systems*** *sept 2021 - sept 2022*
- **Télécom Paris** Saclay, France
  *Engineering Degree, specialization in **Distributed Systems** and **Data Science*** *sept 2019 - sept 2022*
- **Lycée Chaptal** Paris, France
  *Preparatory Classes: PCSI/PSI** *sept 2017 - july 2019*

Skills

- **Systems**: Linux kernel, Hotspot JVM
- **Programming Languages**: C, C++, JAVA, Python, JavaScript, Bash
- **Cloud**: Kubernetes, Docker, GCP
- **High Performance Computing**: CUDA, MPI, OpenMP
- **Data Science**: Keras/TensorFlow, ScikitLearn
- **Soft Skills**: Teaching, Public Speaking
- **Languages**: French(Mother Tongue), English(Bilingual), German(Intermediate)