|            | 26 rue des cordelières<br>75013 Paris, France<br>antoine.bak@inria.fr<br>+33 6 70 31 06 77                                                                                                                                                                            |                          |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| PROFILE    | In September 2024, I started a Ph.D. in the project-team COSMIQ in the INRIA of Paris under the supervision of Anne Canteaut and Léo Perrin. I am currently working on symmetric cryptology and more precisely on primitives optimized for use in advanced protocols. |                          |
| EDUCATION  | <ul> <li>Master Parisien de recherche en informatique (MPRI)</li> <li>Research-oriented master in computer science</li> <li>cryptology, quantum algorithms and computer algebra</li> <li>learn about the state of the art of research in those fields</li> </ul>      | 2023-2024                |
|            | <ul> <li>École polytechnique</li> <li>Majoring in mathematics and computer science</li> <li>algebra, number theory, algebraic geometry</li> <li>cryptology, error correcting codes</li> </ul>                                                                         | 2020-2023                |
|            | Lycée Kléber, Strasbourg<br>Classe préparatoire MPSI - MP*<br>A two-year intensive university-level preparation in mathematics<br>to prepare for highly competitive nationwide exams                                                                                  | 2018-2020<br>and physics |
| EXPERIENCE | <ul> <li>Research internship</li> <li>INRIA Paris <ul> <li>symmetric cryptology under the supervision of Léo Perrin</li> <li>cryptanalysis of Arithmetization-oriented primitives</li> </ul> </li> </ul>                                                              | 03/2024-08/2024          |
|            | <ul> <li>Research internship</li> <li>DTU, Copenhagen <ul> <li>cryptology, advanced protocols under the supervision of Lui</li> <li>study of zero-knowledge proofs protocols and their applicat computation</li> </ul> </li> </ul>                                    |                          |
|            | <ul> <li>Internship in a Research &amp; Development service</li> <li>Sysnav <ul> <li>developing algorithms for calibrating magnetic sensors</li> <li>algorithmics, optimization</li> </ul> </li> </ul>                                                                | 06/2022-09/2022          |
|            | <ul><li>Internship in the French coast guards</li><li>Cherbourg-en-Cotentin</li><li>Internship as a military officer</li></ul>                                                                                                                                        | 09/2020-04/2021          |
| TEACHING   | <b>Tutoring in mathematics</b><br>Bachelor of Science, École Polytechnique                                                                                                                                                                                            | 2022-2023                |