

Cryptography and Privacy Lab

Yongsoo Song

Department of Computer Science and Engineering, Seoul National University

(Last update: August 2021)

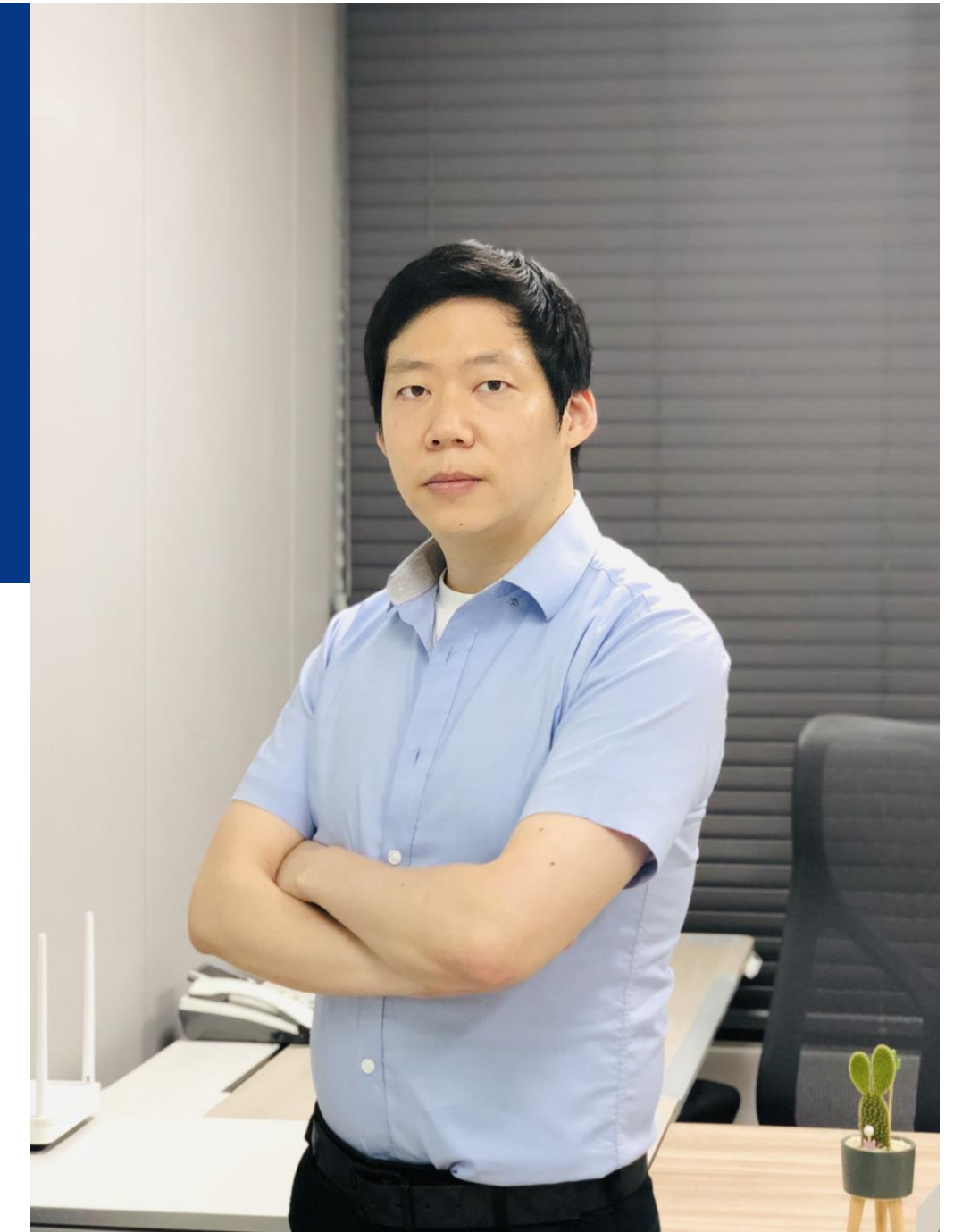


Principal Investigator: **Yongsoo Song (송용수)**

Email: y.song@snu.ac.kr

Webpage: <https://yongsoosong.github.io/>

Office: Room 501, Building 301 (by appointment)



Seoul National University (2005~2017)

Ph.D. in Mathematical Sciences (Cryptography)

B.S. in Mathematical Sciences

UC San Diego

UC San Diego (2018~2019)

Postdoctoral Researcher, Department of Computer Science and Engineering



Microsoft Research, Redmond (2020~2021)

Senior Researcher, Cryptography and Privacy Research Group



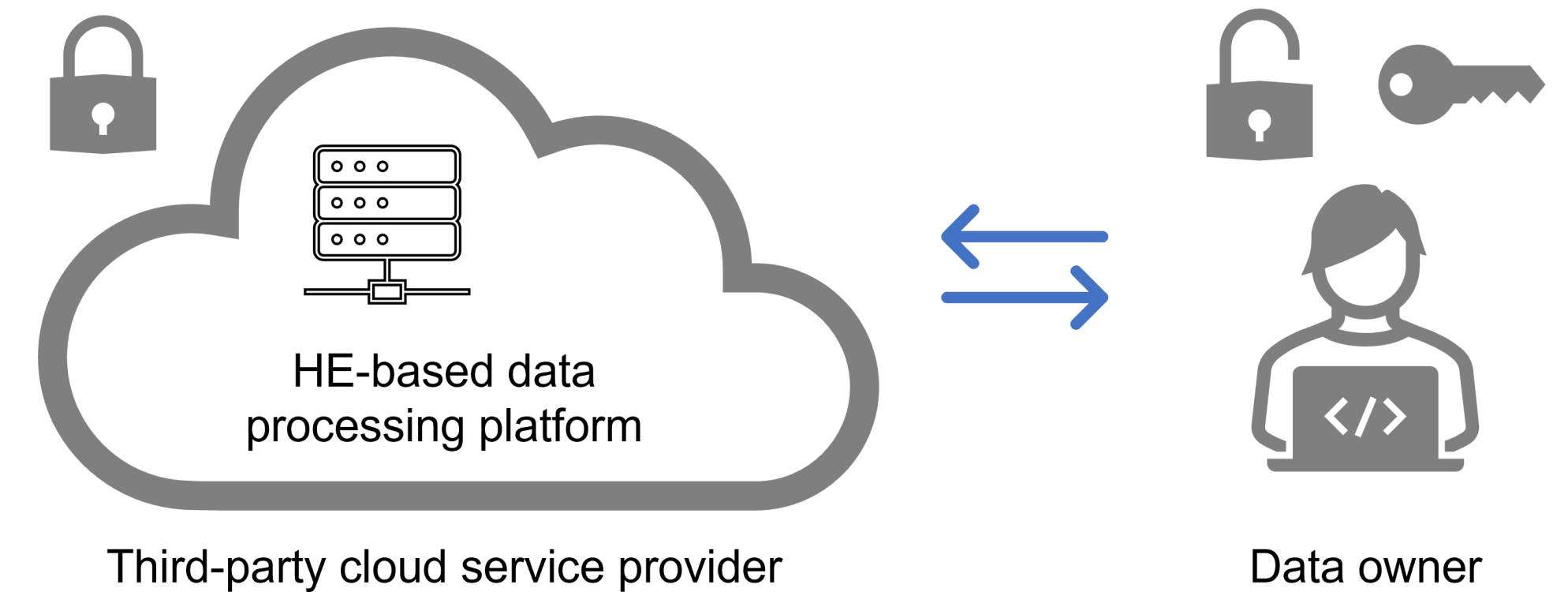
Seoul National University (2021~Present)

Full-time Professor, Department of Computer Science and Engineering



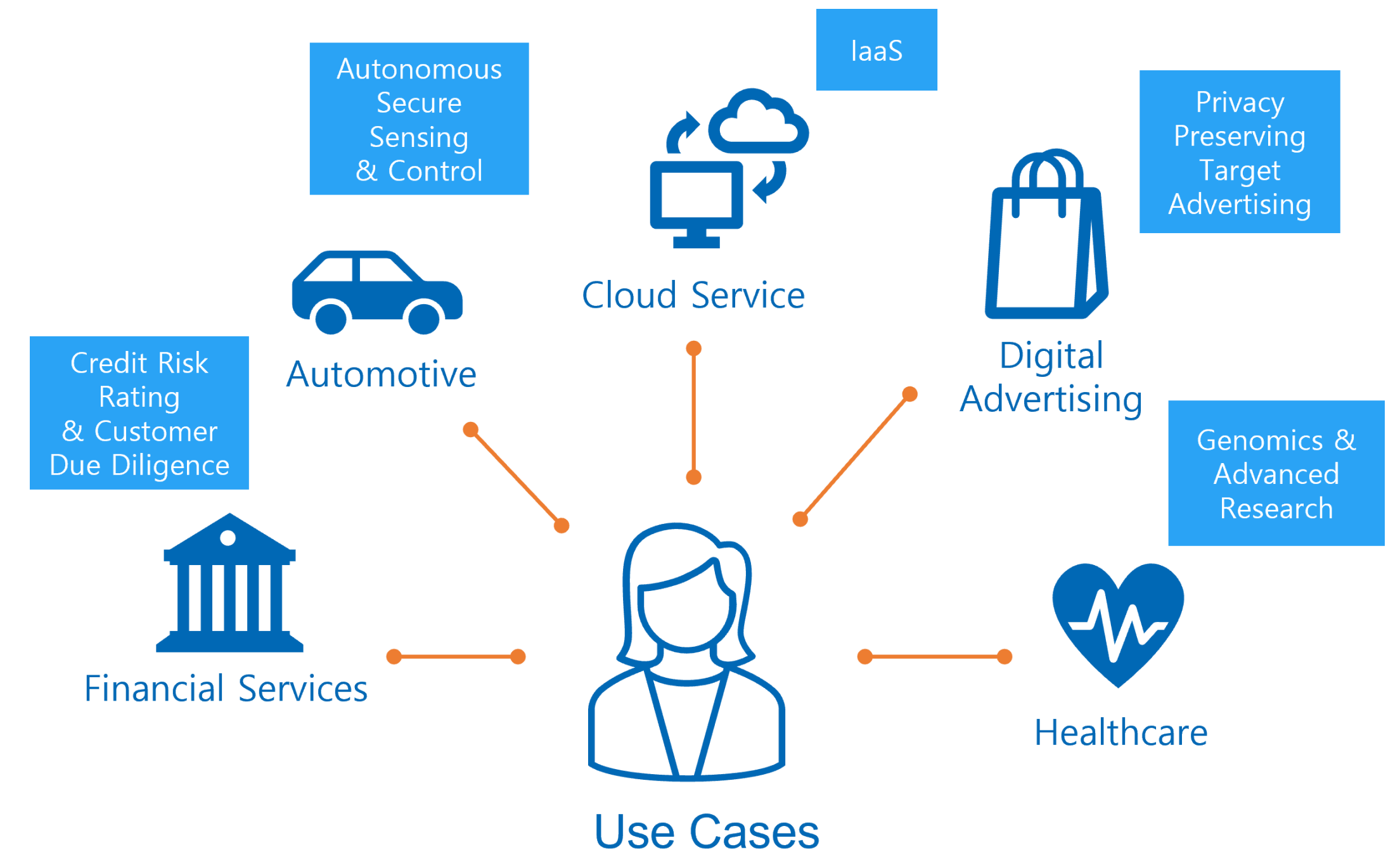
Advanced Cryptography

- ✓ Traditional cryptography guarantees data privacy, integrity and authenticity; however, it is not sufficient to resolve the security and privacy issues in recent data science and industry
- ✓ We study both theoretical and applied aspects of modern cryptographic techniques for distributed computation
- ✓ We are particularly interested in design, implementation, and optimization of secure computation technology such as homomorphic encryption and multi-party computation



Privacy-Preserving Machine Learning

- ✓ Advanced cryptography has a wide range of applications in industries and public services based on sensitive data such as recommendation system, biometric authentication, statistical analysis, and medical service
- ✓ We aim to build privacy-preserving protocols for training and inference of machine learning models and address the security and privacy concerns in cloud computing



Students & Application

- ✓ Office: Room 451-1, Building 301
- ✓ Current (August 2021): 2 PhD Students, 4 Interns
- ✓ I am always looking for motivated and passionate students with various backgrounds including computer science and mathematics.
- ✓ If you are interested in joining Cryptography and Privacy Lab, please contact me at least six months prior to applying for the graduate program.
(The application process usually starts in April / October)



Internship Program

- ✓ 저희 연구실에서는 항상 유급 인턴 프로그램을 운영하고 있습니다. 인턴십의 목적은 암호분야 연구 및 랩 생활의 경험을 제공하여 대학원 진학과 전공 선택에 도움을 주고 동시에 지원자의 학습, 연구 역량을 평가하는 것입니다.
- ✓ 인턴기간 중 성과를 보인다면 우선적으로 선발할 수 있으며 Full-time 인턴 기간은 학위 기간에 포함됩니다.
- ✓ 인턴십은 대부분 여름/겨울에 진행되며 상황에 따라 연장되거나 중단될 수 있습니다.
- ✓ 인턴십 지원을 원한다면 email로 간략한 소개를 cv, 성적증명서와 함께 보내주시기 바랍니다.
- ✓ If you are a foreign student who is not currently in Korea, it may require substantial paperwork to participate in our internship program due to the visa application.

