



### About NTT Research

NTT Research opened its offices in July 2019 as a new Silicon Valley startup to conduct basic research and advance technologies that promote positive change for humankind. Currently, three labs are housed at NTT Research facilities in Sunnyvale: the Physics and Informatics (PHI) Lab, the Cryptography and Information Security (CIS) Lab, and the Medical and Health Informatics (MEI) Lab. The organization aims to upgrade reality in three areas: 1) quantum information, neuroscience and photonics; 2) cryptographic and information security; and 3) medical and health informatics. NTT Research is part of NTT, a global technology and business solutions provider with an annual R&D budget of \$3.6 billion.

**Company Founded:** 2019

**Number of Employees:** More than 50

**Headquarters:** Sunnyvale, CA

### NTT Research Executives

Kazuhiro Gomi - President and CEO

Hideaki Ozawa - Chief Operations Officer and Chief Technology Officer

Matt Ireland - Chief Security Officer

Yoshihisa Yamamoto - Director, PHI Lab

Tatsuaki Okamoto - Director, CIS Lab

Joe Alexander - Distinguished Scientist and Director, MEI Lab

Kei Karasawa - Vice President of Strategy

Rae-Ellen Hamilton - Vice President of Human Resources

Chris Shaw - Vice President of Global Marketing

### Collaborators

NTT Research collaborates with academic institutions and organizations to advance its fundamental research. Collaborators include:

- MIT
- Stanford University
- NASA Ames
- University of Chicago
- University of Waterloo
- Tokyo Institute of Technology
- National Cerebral and Cardiovascular Center
- Cornell University
- Georgetown
- Simons Institute at UC Berkeley
- CalTech
- Swinburne
- UCLA
- Riken
- University of Michigan
- 1Qbit
- University of Washington
- University of Notre Dame
- Technical University of Munich

### NTT Research Milestones

- Proposed a new field of study related to Coherent Ising Machine in collaboration with Stanford
- Solved a 20-year-old cryptography problem involving indistinguishability obfuscation
- Won an IACR Test-of-Time Award for Attribute-Based Encryption research in collaboration with UCLA
- Two of the three Best Paper award winners at Crypto 2020 were co-authored by NTT cryptographers
- National Science Foundation granted a \$10 million Expeditions in Computing award to Stanford for CIM research in collaboration with NTT Research
- Hosted inaugural Upgrade summit in September 2020 to cover advances in fundamental research
- Joint research with National Cerebral and Cardiovascular Center designed to develop cardiovascular disease-related computational models to be implemented on the bio digital twin
- Collaborated with two-time Academy Award winning cinematographer, Janusz Kaminski, on "Upgrade Reality" short film