

Researchers-File



Terumi Umematsu

Joined the company in 2013

Assistant Manager,
Biometrics Research Laboratories

Great environment for conducting research.

I have conducted a wide range of research at university, including AI, machine learning and speech recognition. When I was looking to join a company, I chose this laboratory because of its positive atmosphere that made me feel I could create useful things for people, and no other companies seemed to meet my expectations as much as NEC. After joining NEC, I worked on noise suppression technology for automated assessment of customer service quality. Working in here, I have become to appreciate this great environment for conducting R&D even better. Just a few examples of nice things about the labs are how the Research Fellows directly provide us with clear guidance, how we are able to ask questions of famous researchers in various research fields and they provide us with careful and detailed answers, and how the people here are not only strict about their works but also very kind as coworkers. In the future, I would like to research into understanding the internal aspects of humans as the essence of communication. I will keep on incorporating the latest technologies that are useful to society, and contribute to the future of NEC through R&D.



Jianquan Liu

Joined the company in 2012

Assistant Manager,
Biometrics Research Laboratories

I joined NEC because I desired to create novel database technologies for multimedia applications.

At university, I majored in computer science. Since I knew many alumni were working at NEC, I felt high affinity with the company. Furthermore, I found standing on the shoulders of the giant, NEC, it is possible for me to realize the dream of making great contributions to the society through R&D in database technologies for multimedia applications. Therefore, I decided to join the company. Recently, I have been working on a world-only-one technology, named as profiling across spatio-temporal data. I believe this technology will be a core component in many future applications for social solutions. As well as my daily research, I am also an adjunct assistant professor at Hosei University. With NEC, here, I very appreciate that we have the optimum environment for researchers in the Laboratories where we can talk freely, actively discuss and share our ideas.



An exhibition of the technology
"profiling across spatio-temporal data"
at NEC iEXPO KANSAI



Hiroshi Takechi

Joined the company in 2014

Security Evangelist,
Security Research Laboratories

I wanted to use my capabilities to the full at NEC which has a strong focus on security.

I worked for over 20 years in a security-related industry and I joined the Laboratories because I thought I would be able to use my capabilities to the full in light of how NEC has a strong focus on my field. I am currently Representative for Information Security Operation providers Group Japan (ISOG-J) and Representative Executive of the Cyber Risk Intelligence Center (CRIC). My mission is not technology research itself, but using past experience and contacts, etc., to think about social mechanisms and necessary systems to solve social issues relating to security, and to create a "place" for utilizing NEC technology and capabilities. There are large numbers of very talented and sincere people gathered at the Laboratories. It will be important to place ourselves in an R&D environment where we can feel ourselves even more in contact with cyber space, and I hope to be able to contribute to the establishment of such an environment.



Haruna Higo

Joined the company in 2014

Security Research Laboratories

I hope to achieve lots of research results that are highly recognized both within and outside the company.

As a student, I researched into the theory of cryptography and also was interested in research of cryptography for real-life applications. I joined the Laboratories not only because of the research area, but also the free and open atmosphere where lots of talented researchers hold discussions between themselves irrespective of their seniority. I am now researching methods for avoiding leakage of subtle information from biometric authentication systems using cryptographic techniques. Our paper has been accepted for presentation at a prestigious international conference in the field of cryptography. Just as I had imagined before joining, senior and experienced researchers carefully listen to and discuss ideas from young researchers like me and I feel I am conducting research as a researcher with own discretion. I hope to gain more expertise and experience, and achieve lots of research results that are highly recognized both within and outside the company.

Researchers-File



Kozo Satoda

Joined the company in 1993

Senior Manager,
System Platform Research Laboratories

When I visited during my job-hunting, I was impressed that there were so many upbeat and energetic people.

As a student, I was in the school of electrical engineering and conducted research into image recognition and image generation. I visited many industrial research laboratories when I was job-hunting, but I joined this one because the content of NEC's research appealed to me and because I was impressed by how upbeat and energetic people were when they talked with me during my visit. At present, I am developing a solution for use in event security that shares video images from the field with a command center to help prevent crime and terrorism. It can also be applied to emergency medical care and to public services such as fire-fighting and disaster prevention. I want to contribute to creating a safer, more secure society.



Wearable camera for event security use



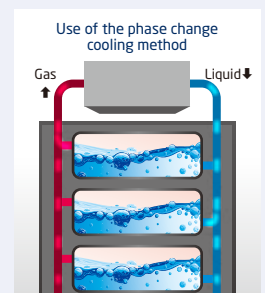
Koichi Todoroki

Joined the company in 2015

Assistant Manager,
System Platform Research Laboratories

It is a workplace where we can freely fling around ideas to create better things for society.

At graduate school, I researched elementary particles and atom cores. I joined the Laboratories because, in addition to the advanced and diverse research being conducted, the people I met here when job-hunting were easy to talk to and it seemed like a good match for me. I am currently developing a phase change cooling system, which uses latent heat to transport heat, and effectively emits exhaust heat from the servers in the data center. I find it a workplace where it is easy to conduct research because we can freely fling our ideas around regardless of our positions, to create better technology and products for society. In the future, I would really like to conduct research into solving the world's energy problems.



Emmanuel Le Taillandier de Gabory

Joined the company in 2007

Principal Researcher,
System Platform Research Laboratories

Our laboratories value the curiosity and playful imagination of researchers.

I majored in optics and optical communications. I tried my hand in development of optical communication devices, but I decided to join the Laboratories because I wanted to contribute to a bigger technological change from a wider perspective. At our Laboratories, I have been in charge of development of new modulation and demodulation methods and distortion compensation technology for large capacity optical communications and submarine networks. I conducted an experimental validation of transmission over 10,000km of optical fiber cable. The Laboratories are an environment overflowing with an atmosphere of passion and responsibility, which emphasizes the researcher's curiosity and playful imagination. I was particularly delighted when my paper on optical coded modulation technology received an award for Best Paper.



Laying of large capacity submarine optical cable



Soma Shiraishi

Joined the company in 2013

Assistant Manager,
Data Science Research Laboratories

An environment that enables the development of a comprehensive portfolio of solutions for all phases from technological research to application at production sites.

I studied image processing and image recognition at graduate school, and I decided to work at the laboratories at NEC which was conducting research in this field. Currently, I am in charge of developing solutions geared towards retail stores. Aside from technologies including cash registers that can scan products directly without the need for barcodes, and surveillance cameras that can detect shoplifters, I am also involved in developing solutions to help optimize sales through the visualization of the movement patterns of products. The most rewarding aspect about working at NEC laboratories is the ability to gain experience ranging from research and development to development of solutions for business. You'd be surprised at how many businesses have been launched through research conducted at our laboratories. I feel it's an excellent environment to develop skills toward becoming a proficient researcher.



An accounting process that distinguishes between different types of fruit and vegetables