

Toshiba Global Internship 2017

	Toshiba group is a diversified electric/electronic manufacturer and provides a wide range of products and services on a global basis in four business domains: Energy, Social Infrastructure, Electronic Devices and Digital Solutions.
Introduction	Interns in Toshiba group work on hands-on projects that contribute to a better society. You'll have the opportunity to gain valuable experience from applying what you have learned in university to real work, and also experience life in Japan.
	In addition to an opportunity to understand Toshiba's work culture, this could also be your first step to considering the prospect of a career with Toshiba group in Japan.
	For successful interns, there is the possibility of full-time job offer.
Duration	Minimum of consecutive 4 weeks during November 2017 to February 2018. Start date upon mutual discussion.
Target Candidates	Students currently enrolled in university who will graduate in 2018 or graduates with less than 3-year work experience.
Qualifications	 Strong interest in Toshiba group. Effective English communication skills. Further qualifications required depending on the position. Check the <u>Position List</u> for further information.
Location	Interns will be assigned to a Toshiba group factory or office in Japan.
What We Offer	 Round-trip flight ticket between your country and Japan. Visa acquisition (if necessary). Accident insurance in Japan. Daily meal allowance: 2,500 yen/day. Transportation allowance in Japan related to internship. Accommodation in a Toshiba dormitory. Toshiba Global Intern Lifestyle Guide Personal Mentorship Program
How to Apply	Apply online at TOSHIBA Online Application. Prepare the following documents and upload them to the online application system: 1. Profile photo. 2. Resume (PDF) 3. Academic record for all semesters (transcript or mark sheet) (PDF) Application deadline: September 13, 2017, 7:00am JST *All applications will be reviewed after the deadline. Successful candidates will be invited to an interview. Selection will be completed by the end of October 2017.

For further information, visit our website at http://www.toshiba.co.jp/saiyou/international/internship/



Position List

Engineer Intern Positions

Click Position No. to see details of the position.

Energy Business Domain

Position No.	Type of Engineer	Project
Intern001	Sales Engineer	Cost estimating for overseas projects
Intern002	Plant System Engineer	Information & control engineering training for power generation
Intern003	Plant System Engineer	Heat & mass balance training through steam turbines and generators
Intern004	Design & Development Engineer	Control Systems for Thermal and Hydro Power Generation
Intern005	System Engineer	Distributed Control System (DCS) & Information System for Thermal Power Plant

Social Infrastructure Business Domain

Position No.	Type of Engineer	Project
Intern006	Design & Development Engineer	Industrial Controller
Intern007	Design & Development Engineer	Industrial PC (IPC)

Electronic Devices Business Domain

Position No.	Type of Engineer	Project
Intern008	Design & Development Engineer	Analog power IC
Intern009	R&D Engineer	Image Recognition Software for Automotive Products
Intern010	Application Engineer	Discrete Semiconductors for Automotive Application
Intern011	Application Engineer	Discrete Semiconductors for Power Management Applications
Intern012	Application Engineer	Optoelectronic devices
Intern013	Application Engineer	Small signal semiconductors

>>> See next page for R&D Intern positions



R&D Intern Positions

Click Position No. to see details of the position.

Corporate Research & Development Center

Position No.	Laboratory	Research Field
Intern014	Computer Architecture & Security Systems Laboratory	Visual analysis applications
Intern015	Wireless System Laboratory	Wireless Communication Systems
Intern016	Multimedia Laboratory	Deep learning-based Image Analysis Systems
Intern017	Interactive Media Laboratory	Computer vision and pattern recognition system
Intern018	Electron Devices Laboratory	Discrete Semiconductors and optoelectronic devices
Intern019	Advanced LSI Technology Laboratory	Al-oriented LSI products
Intern020	Advanced LSI Technology Laboratory	Field programmable gate array (FPGA)

Corporate Software Engineering & Technology Center

Position No.	Research Field
Intern021	System software and middleware

Corporate Solutions Development Center

Position No.	Research Field
Intern022	Al and deep learning framework, Big data analyzing system, IoT sensing system



Engineer Intern Positions

Energy Business Domain

Creating Sustainable Societies

Power systems are indispensable for contemporary lifestyles, and demand for expected to remain vigorous worldwide. Leveraging expertise cultivated since the company's foundation, Toshiba Group is contributing to the creation of infrastructure that enriches quality of life for people throughout the world. In order to ensure stable supply of electricity, we offer hydro, solar, geothermal and wind power generation facilities in the renewables space, as well as thermal and nuclear power generation systems.



We are also a leading supplier of power transmission and distribution systems that deliver electricity to homes, commercial facilities and other users; rechargeable batteries for the efficient storage of energy; hydrogen-based autonomous energy supply systems utilizing renewable energy and hydrogen; and smart grids, the next-generation energy distribution systems that combine power infrastructure with communications infrastructure.

Related link: Energy Systems & Solutions Company

Internship in Energy Systems & Solutions Company

Job No.	Intern001
Company	Energy Systems & Solutions Company
Products	Hydro Turbine and Generator
Location	Kawasaki, Kanagawa
Type of Engineer	Sales Engineer Intern
	Support cost estimating for overseas projects
Internship Project	You will gain experience in the following: • Project management skill both Technical and Commercial • Deep Technical knowledge of Hydroelectric equipment • Hydroelectric project system architecture planning • Technical negotiation skill with customers and vendors
Basic Qualifications	Bachelor's or higher degree Knowledge of electrical engineering including circuit theory, magnetic theory, and electrical machinery Excellent English communication skills
Preferred Qualifications	Excellent presentation and negotiation skills



Job No.	Intern002
Company	Energy Systems & Solutions Company
Products	Thermal Power Generation Equipment
Location	Yokohama, Kanagawa
Type of Engineer	Plant System Engineer
	Information & control engineering for power generation
Internship Project	You will participate in information and control engineering work related to current power generation projects, and have opportunities to visit power plant manufacturing facilities You will gain experience in the following: • Overview of thermal power plants • Information & control engineering for power generation
Basic Qualifications	Master's or higher degree Knowledge of control engineering, electrical engineering, mechanical engineering and information technology Excellent English communication skills
Preferred Qualifications	Excellent presentation and negotiation skills

Job No.	Intern003
Company	Energy Systems & Solutions Company
Products	Facility of Thermal Power Combined Cycle Plant
Location	Yokohama, Kanagawa
Type of Engineer	Plant System Engineer
	Heat & mass balance training through steam turbines and generators
Internship Project	You will gain experience in the following: • Knowledge of thermal power combined cycle plant equipment • Overview of real business processes • Practical experience in applying knowledge of thermodynamics and fluid dynamics to real engineering situations • Experience of using HB software
Basic Qualifications	Bachelor's or higher degree in Mechanical Engineering Knowledge of thermal dynamics, fluid dynamics and material dynamics Excellent English communication skills Microsoft Office skills
Preferred Qualifications	N/A



Job No.	Intern004
Company	Energy Systems & Solutions Company
Products	Control Systems for Thermal and Hydro Power Generation
Location	Fuchu, Tokyo
Type of Engineer	Design & Development Engineer
	Design, implementation and test of control & information system for thermal and hydro power plant
Internship Project	You will gain experience in the following: • Understanding Toshiba's technical processes and solutions • Problem-solving techniques and team work • Design and test processes through tasks related to control software design or database implementation
Basic Qualifications	 Bachelor's or higher degree Knowledge of electrical engineering or measurement & control engineering Presentation and negotiation skills Excellent English communication skills
Preferred Qualifications	Basic knowledge of information technology and mechanical engineering Basic knowledge of simulation tools such as Matlab/ Simulink, etc. Project management skills

Job No.	Intern005
Company	Energy Systems & Solutions Company
Products	Distributed Control System (DCS) & Information System for Thermal Power Plant
Location	Fuchu, Tokyo
Type of Engineer	System Engineer
	Design, implementation and testing of Distributed Control System (DCS)/ Information System for Thermal Power Plant
Internship Project	You will gain experience in the following: • Understanding Toshiba's technical processes and solutions • Problem-solving techniques and team work • Design and test process through tasks related to DCS graphical screen design or DCS database implementation
Basic Qualifications	 Bachelor's or higher degree in Electrical engineering , information engineering, electronics & communication engineering or computer engineering Familiarity with DCS and plant information system in Power Plant Excellent English communication skills
Preferred Qualifications	Basic knowledge of simulation technology, such as Matlab, Simulink, etc.



Social Infrastructure Business Domain

To Realize a Sustainable Society with Safety, Security and Reliability

Toshiba Group aims to realize a sustainable society that is safe, secure and reliable through our solutions for Public Infrastructure, Building & Facilities and Transportation and Industrial Systems all over the world. For public infrastructure, we offer systems and solutions for water supply and sewerage, highways, disaster prevention, broadcasting, telecommunications, security and automation. For buildings and facilities, we offer energy-saving, eco-friendly solutions for elevators & escalators, air-conditioners, and lighting offering higher comfort. For Transportation and Industrial Systems, we offer high value-added systems and solutions for railways, motors & inverters, rechargeable batteries and automotive devices. Also, we offer retail & printing solutions to support businesses for stores, logistics and offices.

Related link: Toshiba Infrastructure Systems & Solutions Corporation

Internships in Toshiba Infrastructure Systems & Solutions Corporation

Job No.	Intern006
Company	Toshiba Infrastructure Systems & Solutions Corporation (group company)
Products	Industrial Controller
Location	Fuchu, Tokyo
Type of Engineer	Design & Development Engineer
Internship Project	Support of new controller development
	You will gain experience in the following: • How to use Toshiba's procedures to generate and develop products • Evaluation and testing methods and skills as a design & development engineer
Basic Qualifications	Bachelor's or higher degree in Electrical Engineering or Information Engineering Excellent English communication skills
Preferred Qualifications	Knowledge of micro-computer technology

Job No.	Intern007
Company	Toshiba Infrastructure Systems & Solutions Corporation (group company)
Products	Industrial PC (IPC)
Location	Fuchu, Tokyo
Type of Engineer	Design & Development Engineer
	Market research and technological training of Industrial PC (IPC)
Internship Project	You will gain experience in the following: • How to use Toshiba's procedures to generate and developing B2B products • Evaluation and testing methods and skills as a design & development engineer
Basic Qualifications	Bachelor's or higher degree in Mechanical Engineering or Electrical Engineering Excellent English communication skills
Preferred Qualifications	Knowledge of computer technologies



Electronic Devices Business Domain

Storage and Devices that are shaping our future

In the era of big data, you either sink or swim in the sea of information. In fact, advanced electronics are contributing more than ever in all areas of society, from cutting energy consumption to the control and operation of automobiles. Toshiba Group supports this progress by bringing innovative products to new markets.

In the discrete semiconductor business, we focus on the power devices that control equipment power consumption. Our system LSI business supports advances in electronic equipment by offering ICs for IoT, automotive, communications and power supply applications. In the HDD business, we focus on enterprise HDDs for data centers and servers.

In our age of big data, Toshiba Group sets the pace for developing storage solutions with NAND Flash memories and BiCS FLASH™ with a 3D stacked cell structure. These devices are the building blocks for storage in smartphones and tablet PCs and, increasingly, as SSD, in data centers and servers-the essential infrastructure that sustains our data-driven society.

Related link: Toshiba Electronic Devices & Storage Corporation





Internships in Toshiba Electronic Devices & Storage Corporation

Job No.	Intern008
Company	Toshiba Electronic Devices & Storage Corporation (group company)
Products	Analog power ICs for automotive, industrial and consumer applications
Location	Kawasaki, Kanagawa
Type of Engineer	Design & Development Engineer
Internship Project	 Design of analog circuits for ICs such as amplifiers, voltage regulators and A/D converters Evaluate performance of analog circuits by simulation, and verify result You will gain experience in the following: Understanding Toshiba's technical process and solutions Using techniques and tools to better understand what customers are working on Problem-solving techniques and team work Design and verification of analog circuits
Basic Qualifications	 Bachelor's or higher degree in Electrical Engineering, Electronic Engineering, Electrical & Electronic Engineering, Chemical Engineering, Physics or Applied Physics Experience of circuit design in any form Excellent English communication skills
Preferred Qualifications	Knowledge of MOS device physics Experience of CAD tools for IC design, such as SPICE and layout tools

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Job No.	Intern009
Company	Toshiba Electronic Devices & Storage Corporation (group company)
Products	Image Recognition Software for Automotive Products
Location	Kawasaki, Kanagawa
Type of Engineer	R&D Engineer
Internship Project	Research and development of image recognition using deep learning for automotive applications.
	You will gain experience in the following: • Understanding deep neural network for image recognition • Software implementation and verification of image recognition algorithms for automotive applications
Basic Qualifications	 Master's or higher degree in Computer Science, Electrical Engineering or related computer field 1-2 year academic experience in software development in various programming languages, including C and C++ Excellent English communication skills
Preferred Qualifications	Experience in research on image recognition, image signal processing, and computer vision Experience in software development for embedded system



Job No.	Intern010
Company	Toshiba Electronic Devices & Storage Corporation (group company)
Products	Discrete Semiconductors for Automotive Application
Location	Kawasaki, Kanagawa
Type of Engineer	Application Engineer
Internship Project	Application testing and evaluation of power device products Production of technical documents
	You will gain experience in the following: • Methods for evaluating power devices • Learn how to use measuring equipment to evaluate devices evaluation • Technical writing skills for documentation
Basic Qualifications	Bachelor's or higher degree in electrical & electronics engineering or semiconductor engineering Excellent English communication skills
Preferred Qualifications	Knowledge of power device and application circuit

Job No.	Intern011
Company	Toshiba Electronic Devices & Storage Corporation (group company)
Products	Discrete Semiconductors for Power Management Applications
Location	Kawasaki, Kanagawa
Type of Engineer	Application Engineer
Internship Project	Application test/ products evaluation of power devices Produce technical documents
	You will gain experience in the following: • Power device evaluation methods • Using measuring equipment and machines to evaluate devices evaluation • Technical writing skills for documentation
Basic Qualifications	Bachelor's or higher degree in Electrical & Electronics Engineering or Semiconductor Engineering Excellent English communication skills
Preferred Qualifications	Knowledge of power device and application circuit



Job No.	Intern012
Company	Toshiba Electronic Devices & Storage Corporation (group company)
Products	Optoelectronic devices (photo couplers and photo relays)
Location	Buzen, Fukuoka or Kawasaki, Kanagawa
Type of Engineer	Application Engineer
Internship Project	Evaluation of photo coupler products and market research Training in marketing by market research.
	 You will gain experience in the following: Understanding Toshiba's sales process and technical solutions Using techniques and tools to better understand what customers are working on Problem-solving techniques and team work Design and test of application circuits, reference designs or prototypes, and related discrete semiconductors.
Basic Qualifications	Bachelor's or higher degree in Electrical & Electronics Engineering or related field Excellent English communication skills Native-level Mandarin is a must
Preferred Qualifications	 Knowledge and experience of six-sigma methodologies Knowledge of optical optoelectronics Business communication skills Knowledge of power electronics applications, such as industrial inverters and wind inverters Knowledge of circuit design technology Semiconductor process engineering

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Job No.	Intern013
Company	Toshiba Electronic Devices & Storage Corporation (group company)
Products	Small signal linear IC, SOI-SW IC for High frequency solution, Tr, Diode
Location	Kawasaki, Kanagawa
Type of Engineer	Application Engineer
	Evaluation of high frequency antenna switches
Internship Project	You will gain experience in the following: • Knowledge of high frequency circuits • Evaluation methods for high frequency devices
Basic Qualifications	Bachelor's or higher degree in Electrical & Electronics Engineering or Semiconductor Engineering Knowledge of electronic engineering Excellent English communication skills
Preferred Qualifications	Knowledge of high frequency circuit technology, power supply circuit technology and semiconductor process engineering Basic Japanese language ability is a plus Fluency in Mandarin an advantage



R&D Intern Positions

Corporate Research & Development Center

An engine of technological innovation constantly seeking new challenges, the Corporate Research & Development Center is the source of Toshiba's ability to advance hand in hand with people the world over toward a better, brighter future. Our mission is to create new products and systems that enrich the quality of life and invigorate society. Turning new knowledge and inventions into forms that serve the needs and aspirations of individuals and society is what innovation is all about. By linking exciting new discoveries and creativity to innovations, we aim to be a source of "Delight and Surprise" bringing people new empowering experiences underpinned by "Safe and Sound."

Related link: Corporate Research & Development Center

Internship in Corporate Research & Development Center

Job No.	Intern014
Laboratory	Computer Architecture & Security Systems Laboratory
Products	Memory and Storage, Embedded Systems, Vehicle On-board Systems, Security of Infrastructure Systems, etc.
Location	Kawasaki, Kanagawa
Internship Project	The intern will be involved in the project for • Prototyping visual analysis applications based on our big data visualization platform • Discussion improvements to our platform in respect of visualization representation, platform API, performance, etc., with researchers
	You will gain experience in the following: • Latest visual analysis technologies • Using techniques and tools to understand data characteristics • Problem-solving techniques and team work • Understanding Toshiba's research environment
Basic Qualifications	 Master's or higher degree in a major related to visual analysis such as Computer Science or Engineering, Electrical & Electronic Engineering, Information Technology or Mathematics Research experience and good knowledge on visual analysis including data visualization, data analysis, machine learning or database Excellent programming skill Excellent English communications skill
Preferred Qualifications	Knowledge of related technical area such as computer architecture, cloud/container, server programming and web application programming Experience of programming using JavaScript, Python, Go languages Experience of data management using NoSQL database Presentation skills



Job No.	Intern015
Laboratory	Wireless System Laboratory
Products	Wireless Communication Systems
Location	Kawasaki, Kanagawa
Internship Project	Apply machine learning to performance evaluation of wireless communication systems
	You will gain experience in the following: • Understanding Toshiba's technical process and solutions • Effective techniques to bring machine learning into wireless communications • Problem-solving techniques and team work
Basic Qualifications	Master's or higher degree Knowledge and skills in wireless communication engineering
Preferred Qualifications	Knowledge and skill in machine learning

Job No.	Intern016
Laboratory	Multimedia Laboratory
Products	Deep learning-based Image Analysis Systems
Location	Kawasaki, Kanagawa
Internship Project	 Survey literature on image analysis using deep learning for given tasks Prepare for experiments by gathering, modifying and implementing source codes from selected methods in above literatures Comparing the above methods theoretically and experimentally. * Develop new ideas to solve limitations in the conventional method.
	You will gain experience in the following: • Understanding Toshiba's research processes • Problem-solving techniques and team work with Japanese researchers
Basic Qualifications	 Master's or higher degree in image processing, computer vision, machine learning, computer science, or any related field Programming skills (C, C++, Python, etc.) Familiarity with or interest in learning Japanese language (preference given to candidates with JLPT N3)
Preferred Qualifications	 Knowledge or experience with signal processing, imaging, 3D vision, computer graphics, or other related technologies Knowledge of computer hardware, image sensors, cameras, or other related devices Communication skills in a global environment.



Job No.	Intern017
Laboratory	Interactive Media Laboratory
Products	Computer vision and pattern recognition system
Location	Kawasaki, Kanagawa
Internship Project	Computer vision and pattern recognition are expected to generate new values by turning unstructured media data into structured data. In recent years, novel machine learning methods, including deep learning and 3D reconstruction and modeling methods, have been proposed with great success, but they require a lot of training data and computational resources. We are researching such recent computer vision and pattern recognition technologies toward practical applications. You will gain experience in the following: • Extend your knowledge of computer vision and pattern recognition • Research industry processes through team work • Software development
Basic Qualifications	 Master's or higher degree in a major related to computer vision and pattern recognition such as Computer Science / Engineering, Electrical & Electronic Engineering, Information Technology, Mathematics, or Mechanical Engineering Research experience and good knowledge of computer vision and pattern recognition, including machine learning or geometry Experience of programming using C, C++ and Python languages Excellent English communications skill
Preferred Qualifications	Knowledge of related technical areas, such as computer architecture, user interface, and embedded programming Presentation skills

Job No.	Intern018
Laboratory	Electron Devices Laboratory
Products	Discrete Semiconductors and optoelectronic devices
Location	Kawasaki, Kanagawa
Internship Project	Research & Development of electronic devices
	You will gain experience in the following: • Understanding Toshiba's technical process and solutions • Using techniques and tools to better understand what customers are working on • Problem-solving techniques and team work.
Basic Qualifications	 PhD in Electrical & Electronic Engineering, Materials Science & Engineering, Physics, or Nano-Materials & Devices Strong understanding of solid state physics and/or semiconductor technologies Enduring motivation to realize future generations of novel electronic devices
Preferred Qualifications	Skills in semiconductor device processes and/or semiconductor device analyses Experience in a presentation of international conferences



Job No.	Intern019
Laboratory	Advanced LSI Technology Laboratory
Products	Al-oriented LSI products
Location	Kawasaki, Kanagawa
	The intern will participate in • Methodology to realize AI hardware from software • Circuit simulation • Performance evaluation of LSI chips on a board
Internship Project	You will gain experience in the following: • Understanding Toshiba's innovative technologies for future neuromorphic computing • Using techniques and tools to better understand how engineers should proceed in development work • Problem-solving techniques and team work • Analogue/digital circuit simulations to implement Nano-electronics devices • Algorithm implementation into FPGA, reference designs or prototypes and related software
Basic Qualifications	Master's or higher degree in Electrical Engineering or Information Science and Technology Strong interests in neuromorphic technologies Excellent English communication skills
Preferred Qualifications	Knowledge of artificial intelligence (AI) and its hardware
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Job No.	Intern020
Laboratory	Advanced LSI Technology Laboratory
Products	Field programmable gate array (FPGA)
Location	Kawasaki, Kanagawa
Internship Project	Development of a high-performance FPGA-based accelerator for deep neural networks (DNNs)
	 You will gain experience in the following: Design skills for high-performance/efficient accelerators featuring deep-pipelined, massively parallel architectures that best utilize FPGA's computations resources. Using of cutting-edge FPGA CAD tools (incl. Verilog, High-level synthesis tools, etc.) Deep insights into FPGAs: "Why FPGA now?" "What's in FPGAs?" "How to best utilize FPGAs?"
Basic Qualifications	 Master's or higher degree in Electrical Engineering and/or Computer Science Knowledge of FPGA and hardware description language (HDL) Excellent English communication skills
Preferred Qualifications	Knowledge of interface circuits and analog circuits



Corporate Software Engineering & Technology Center

Internship in Corporate Software Engineering & Technology Center

Job No.	Intern021
Products	System software and middleware
Location	Kawasaki, Kanagawa
Internship Project	The intern will be provided a Linux-based embedded computer with modern Linux installed and internet access during the internship and expected to complete the mission of researching the following topics: 1. Survey of real-time embedded operating systems for industrial IoT systems 2. Performance evaluation for multi operating system environment with hardware partitioning technology
	You will gain experience in the following: • Understanding product development for next generation industrial IoT devices and services in Toshiba, using open source software • Problem-solving techniques through collaboration with team members and the open source community
Basic Qualifications	 Master's or higher degree Knowledge of operating systems or database architectures Experience in open source software development Experience of working in Unix/Linux environments, database development, networking or security Experience in C and C++ Experience and knowledge in HTML, CSS, JavaScript, Java and network protocols such as HTTP and TCP, UDP in the case of Web
Preferred Qualifications	 Experience in Linux kernel development or database development Experience in multi-process programming Interest in and ability to learn other programming languages (e.g.: Python, Perl or shell script) Interest in and ability to learn conventional and new technologies in the case of the web



Corporate Solutions Development Center

Corporate Solutions Development Center visions on the creation for future with ICT. We work closely with other Toshiba's research centers. In addition to developing new technologies by our own, we also refine technologies developed by other Toshiba research centers to make them applicable for actual products.

Internship in Corporate Solutions Development Center

Job No.	Intern022
Products	Al and deep learning framework, Big data analyzing system, IoT sensing system
Location	Kawasaki, Kanagawa
Internship Project	The intern will participate in the project regarding • Research and development of deep learning and related technologies • Survey on newest technologies in related field • Programing and computer simulations
	You will gain experience in the following: • Developing a deep understanding of new technologies through surveys and discussion with team members • Experiment on programing for deep learning • Understand Toshiba's technology and R&D processes
Basic Qualifications	 Master's or higher degree Knowledge on deep learning or machine learning, signal processing for video, image, audio and speech signals Programing skills in C, C++, Python and other programing languages.
Preferred Qualifications	 Experience of research and/or system development for big data analysis, data mining, image/speech recognition, etc. Programing skill on GPGPU, embedded systems, and/or parallel computing systems Doctorate degree or equivalent research achievement in the area of deep learning, signal processing, image recognition, etc.