Training Notification Form, IIT Delhi

Company Overview

Name: Sony Japan

Website: https://www.sony.com/en/

Company Type: Information Technology

Description: Sony was established by founders who shared a dream and a strong will to enrich people's lives through the power of technology. From our founders' dreams and aspirations, Sony has grown over the years connecting more people with their dreams.
Sony runs a diverse portfolio of businesses from Electronic Business to Music, Movies, and Entertainment, all of which center around "People".
Talents from all over the world have been playing critical roles to make this happen, and will continue to in light of our journey ahead.
We are excited to continue trailblazing with a globally oriented mindset, and we ask that you consider joining us on our journey ahead!

Project Details

Designation: TNF 11 : Research Engineer, Audio Signal Processing

Type: Information Technology

Location: Tokyo, Japan

Project Details: [Technology Field]
Speech/Audio Signal Processing
Machine Learning

[Position Summary]
Sony`s purpose is to "Fill the world with emotion, through the power of creativity and technology."
At Sony Technology Development Laboratories (TDL), we have contributed to the development of various Sony products and services to create Kando (emotion) and social value through our technological power and expertise.

Read more about how our work has been incorporated into products/services below:
https://www.sony.net/Products/create360RA/
https://www.sony.net/Products/create360RA/360VME/
https://www.sony.com/en/SonyInfo/research/technologies/360VME/

The audio research group in TDL focuses on the development of cutting-edge audio signal processing technologies to create next-generation products and services. Our research engineers work with people of diverse professions on an exciting range of projects, including the development of real-time signal processing technologies integrated with ultra-low latency hardware, prototyping microphone systems to capture spatial sound fields, and investigating the application of machine learning to complex audio-related problems.

We are looking for research engineers interested in sound, audio, and music with

We are looking for research engineers interested in sound, audio, and music with a strong passion and will to contribute to our activities.
As a Research Engineer Intern, you will work on one of our group`s critical projects, and will certainly contribute to future research programs and businesses.

[Responsibilities]
With Sony`s purpose in mind, and as an R&D division exploring sound and acoustic research, we believe it is necessary to develop new sound technologies for entertainment, to complement our previous work with consumer audio products. To this end, we are considering how to strengthen machine learning and acoustic simulations to innovate past conventional signal processing technologies. We are actively recruiting people to meet this objective.

There is a specific need for accurate and real-time simulation technology for spatial audio. A wide range of subjects are covered, including estimation of HRTF (Head Related Transfer Function) required for virtual sound image localization, estimation of sound behavior in a room by wave propagation, and vibration simulations of loudspeaker and microphone mechanisms. Traditionally, this has been done with modeling, but we can achieve greater efficiency by utilizing the latest machine learning methods.

During the internship period, we expect interns to tackle the development of novel methods based on state-of-the-art research papers.

[Required qualifications]
- Bachelor's Degree (graduated or currently pursuing) in AI/ML, computer science, or a related technical field, OR equivalent practical experience.
- 5 years of experience or professional skill in one or more general purpose programming languages, including Python, MATLAB, and C/C++.
- 2 years of experience in fields related to audio or speech signal processing.
- Ability to speak and write in English fluently and idiomatically.

[Preferred qualifications]
- Advanced degree (graduated or currently pursuing) in AI/ML, computer science, electrical engineering, or a related technical field.
- First-author publication(s) in peer-reviewed journal(s) and/or conference(s) in the field of audio signal processing, such as IEEE Transactions, JASA, ICASSP, JSV (Journal of Sound and Vibration), and Interspeech.
- Experience applying machine learning to solve issues in acoustical physics (simulation of acoustical wave propagation behavior).
- Experience handling both research and development.
- Experience identifying/understanding ambiguous problems and developing solutions for them.
- Ability to deliver on tight deadlines and adapt to changing or evolving requirements.
- Experience with content creation using DAW (Pro Tools/Reaper, etc.), game engines (Unreal Engine, Unity, etc.), and sound engines (Wwise, etc.).
- Interest in, and knowledge about, music, film, and game production.
- Ability to innovate and develop new approaches to improve sound quality and noise cancellation.
- Excellent verbal and written communication skills in English.
- Basic verbal and written communication skills in Japanese, and/or willingness to learn Japanese.

[Product, Service]
VR/game sound solutions, sound production solutions for the entertainment industry, digital health solutions using sound/vibration, and consumer/B2B audio products.

[Development Environment]
Python, MATLAB, C/C++, COMSOL, etc.

Stipend Details

Stipend:	10,000 JPY Per Working Day
Accommodation:	Yes
Travel Expenses:	Yes
Perks / Bonus:	[Stipend] Bachelor: JPY 10,000/ working day (Net) Master: JPY 11,000/ working day (Net) Your stipend will be calculated based on the working day. Example: If there are 22 working days in a month, net stipend in a month is Bachelor JPY 220,000 / month (Net) Master JPY 242,000 / month (Net) [Other Benefits/Support] Single rental apartment/hotel with Wifi, Visa, flight, commuting fee, international travel insurance all provided by Sony.

Selection Process

Resume Shortlist:	Yes
Written Test:	No
Online Test:	No
Group Discussion:	No
Personal Interview:	Yes
No. of Offers:	2
Selection Process:	*To submit CV& Essay is compulsory. The Essay format will be distributed through placement office. Please follow the instruction given by the placement office.

Eligibility

Diversity Recruiting:	No
Eligible Years:	Graduating in 2025 (Pre-Final Year Students) - B.Tech / Dual / Master's
Eligible Departments:	B.Tech in Biochemical Engineering & Biotechnology, B.Tech in Chemical Engineering, B.Tech in Civil Engineering, B.Tech in Computer Science & Engineering, B.Tech in Electrical Engineering, B.Tech in Electrical Engineering

(Power and Automation), B.Tech in Energy Engineering, B.Tech in Engineering Physics, B.Tech in Engineering and Computational Mechanics, B.Tech in Materials Engineering, B.Tech in Mathematics & Computing, B.Tech in Mechanical Engineering, B.Tech in Production & Industrial Engineering, B.Tech in Textile Engineering, B.Tech and M.Tech in Chemical Engineering, B.Tech and M.Tech in Computer Science & Engineering, B.Tech and M.Tech in Mathematics & Computing, M.Sc in Chemistry, M.Sc in Cognitive Science, M.Sc in Economics, M.Sc in Mathematics, M.Sc in Physics, Master of Design in Industrial Design