

Senior Staff Software Engineer (Job Number: 02651)

Primary Location: United States-California-San Francisco Bay Area - Foster City

Description

SCEA R&D is looking for an individual contributing to research and development of systems libraries for PLAYSTATION® products. The position comprises research, design, and implementation of C/C++ software for voice recognition and acoustic analysis related applications. The software will provide the foundation of an SDK or technology targeted for other developers of the platform such as game developers. This position includes direct contribution to the PLAYSTATION®3 product development and communication with internal and external development partners.

Principle Duties / Responsibilities:

- Improve runtime voice recognition and sample voice applications on PS3 and PlayStation future platforms for many languages
- Develop robust automatic speech recognition (ASR) technologies to various kinds of distortions and variations such as channel and environment distortions, emotional speech, variety of speaking rate and speaking style for multiple languages
- Integrate ASR with technologies of microphone array, echo cancellation, speech enhancement, and other DSP processing for far-field voice recognition under noise
- Develop keyword spotting and voice search technologies and improve out-of-vocabulary rejection
- Implement and improve very large vocabulary continuous voice recognition performance under variety of game sounds and music background
- Improve automatic generation of pronunciation and voice recognition grammar
- Improve acoustic model training and adaptation
- Provide support for PS3 SDK and future PlayStation platform SDK

Required Knowledge / Skills:

- Voice Recognition Technologies
- DSP, speech processing technologies
- HMM and neural network technologies
- Word pronunciation handling
- Voice recognition word grammar handling
- C/C++ programming
- Good written and oral communication skills

Qualifications

Required Experience / Education

- At least 10 years experience and solid understanding in voice recognition and digital signal processing technologies
- At least 10 years experience and strong skills in scripting languages and C/C++ programming
- Bachelor's degree in Computer Science or Electrical Engineering, related engineering discipline, or equivalent

Preferred Experience / Education

- Master's degree or PhD in Computer Science/Electrical Engineering or equivalent is preferred
- Experience of multi-lingual speech and language processing is preferred

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