

The Audio of Things, LLC (“TAOT”)

Electrical Engineer, Embedded Audio Systems

Location: Indianapolis, Indiana area

Description:

Research, development and engineering of hardware and software for audio product electronic systems including amplifiers, loudspeakers, microphones, and signal processing for a wide variety of active loudspeaker products including desktop audio, tablets, smart speakers, headphones, and smart phones.

Responsibilities:

1. Analog and digital hardware design, debugging, and prototyping of embedded audio systems.
2. Research, development, and refinement of signal processing algorithms such as AGC; AEC; Noise reduction/suppression; EQ; IIR/FIR filters; beamforming and Multi-Band Compression to be included into products under development.
3. DSP software/firmware design and porting for embedded controllers (uC's), CODECS, and discrete DSP platforms.
4. Manage and support the complete product development life cycle, including: design, verification testing and production support.

Experience Requirements:

Must have:

1. BSc and MSc.in Electrical Engineering, Computer Science, or closely related discipline.
2. 5+ years design engineering experience. Recent MSc and PhD graduates will be considered.
3. Embedded systems, DSP firmware and hardware design experience.
4. Experience in programming embedded systems using C/C++ and assembly languages, with the ability to port algorithms to multiple hardware platforms.
5. Hands-on experience debugging electronics systems with test equipment.
6. Strong communication and documentation skills, including the ability to discuss complex technical issues with non-experts.
7. Ability to work independently and with a team, some of whom are located in Canada., China, and other international locations

Benefit to have:

1. Small company experience.
2. Embedded system development including use of debug environments, interrupts, timers, task loops, state machines and RTOS'
3. Hands-on knowledge of various communications protocols including: I2C, SPI, I2S and USB.
4. Experience with audio systems including power amplifiers, loudspeaker transducers, and microphones.
5. Familiarity with wireless/RF technologies including Bluetooth.
6. Familiarity with Psychoacoustics and Subjective Audio Testing including Method A, PESQ, POLQA, PEAQ along with Audio Standards (ITU, ETSI, ANSI, IEEE, etc.)
7. Experience with MATLAB in the development of DSP algorithms

This position will focus on TAOT's general product development activities and WaveLock™ technology, which combines algorithms and novel acoustic transducer designs with DSP to improve voice performance and produce loud, rich sound from small-format audio systems.

TAOT provides competitive compensation in an exciting, fast-paced, performance-driven environment. Please submit your cover letter, resume and salary requirements via email to the attention of the CEO at hr@taot.co. Resumes without salary history will not be considered.

TAOT designs, develops, and sells components, subsystems, and products that may include patented technologies that optimize performance of voice interactive devices to solve economic and performance problems in consumer, professional, commercial and tactical audio systems.