Ronak Punase

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SUMMARY

A highly competent audio engineer with a strong background in C/C++, DSP (beamforming, noise reduction, AEC), EDA tools, version control (Git), and CI workflows. I have a deep understanding of PCB and mixed-signal design best practices, acoustic path optimization, and DFM/DFT with manufacturing partners. My proficiency with MATLAB/Python for analysis, alongside my experience in driver development and embedded software, makes me a suitable fit for leading end-to-end audio product development.

EXPERIENCE

Lead Audio Engineer March 2025 – Present
Farmako • farmako.ai *Gurugram, Haryana*

- Responsible for end-to-end microphone product development, including requirements, architecture, prototyping, validation, certification, and production.
- Deep expertise in acoustics, MEMS/dynamic microphone transducers, analog front-end (preamps, biasing), and audio DSP.
- Applied strong development practices in C/C++, handling embedded development for audio pipelines, drivers, RTOS, and multiple interfaces such as I2S/TDM, USB Audio, SPI/I2C; Bluetooth/LE Audio.
- Maintained the best practices of PCB and mixed-signal design (EMI/EMC, grounding, power integrity), ensuring enclosure/acoustic path optimization and carrying collaborations with manufacturing partners for DFM/DFT.
- Conducted frequent measurements and characterization using audio analyzers and fixtures; defined and achieved KPIs, with a focus on key factors such as frequency response, SNR, THD+N, sensitivity, directivity, latency.
- Demonstrated proficiency with MATLAB/Python for analysis, made use of EDA tools for schematics/layout, maintained version control (Git), and implemented continuous integration workflows.
- Owned documentation, reliability, and compliance (e.g., FCC/CE, RoHS/REACH), with active collaboration with suppliers/vendors.

Relevant Previous Experiences removed for brevity

SKILLS

Embedded development: C/C++, drivers, RTOS, interfaces such as I2S/TDM, USB Audio, SPI/I2C
DSP: Beamforming, noise reduction, AEC
EDA tools: Schematics/layout
Version Control: Git, Continuous integration workflows
Languages: MATLAB, Python
Documentation: FCC/CE, RoHS/REACH compliance
Acoustics and design: MEMS/dynamic microphone transducers, preamps, biasing, PCB and mixed-signal design, ADC/CODEC selection, enclosure/acoustic path optimization, DFM/DFT

Other Skills removed for brevity

EDUCATION

Masters of Science in Audio and Music Engineering • University of Rochester • New York, USA • 2018 • GPA: 3.85/4.0 **Bachelors of Engineering** • RGPV University • Bhopal, MP • 2015 • GPA: 4.25/5.0