

HW3

The main beneficiaries of this research are:

- 1. Doctors and Medical Practitioners:** Techniques for reducing noise in ultrasound images can help them obtain clearer and more accurate images, facilitating more precise diagnoses.
- 2. Patients:** Improved ultrasound image quality can lead to more accurate and faster diagnoses, thereby enhancing treatment outcomes and healthcare quality.
- 3. Medical Imaging Centers and Hospitals:** Implementing new techniques to enhance image quality can improve the efficiency and effectiveness of the services they provide, as well as reduce the likelihood of repeat scans due to poor image quality.
- 4. **Researchers in Medical Imaging**:** This research can provide a foundation for developing new and improved techniques in medical image processing, driving innovation in the field.
- 5. Developers of Medical Imaging Equipment and Software:** They can benefit from this research by improving ultrasound devices and image processing software, increasing the value of their products in the market.

Overall, this research contributes to enhancing healthcare quality by providing advanced tools and techniques to improve ultrasound image quality, benefiting all stakeholders involved in the medical field.