PSG INSTITUTE OF TECHNOLOGY AND APPLIED RESEARCH

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Bone Fracture Detection using Computer Vision

Project Team Members:

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Project Description:

Classifying bone fractures with Convolutional Neural Networks (CNNs) is a vital application in medical imaging. This process involves:

- **Data Collection:** Gather labeled X-ray images for training.
- **Data Preprocessing:** Resize, normalize, and augment data.
- **Architecture Design:** Create a CNN with convolutional and pooling layers.
- **Training:** Use a loss function and optimization algorithm to teach CNN to recognize fracture patterns.
- **Validation and Testing:** Assess the model's performance on validation and test sets.
- **Inference:** Use the model to classify fractures in new images.
- **Continuous Improvement:** Regularly update and validate the model.

Key Features:

- **Easy User Interface**
- **Large Dataset Handling**
- **High Accuracy**
- **Medical Image Analysis**
- **Efficiency**