Test

totalTestsRun
totalTestsPassed
totalTestsFailed
+ Test()
+ ~Test()
+ runTest()
+ runTests()
+ summarize()

TestAlgorithm

+ testEmptyArray()
+ testSingleElementArray()
+ testArrayWithDuplicates()
+ testInvalidKValues()
+ testQuickSelect()
+ testQuickSort()
+ runTests()

TestBox2DFilter

+ testUniformImage()
+ testEdgePadding()
+ testGradientImage()
+ testLargeKernelFiltering()
+ testReflectPaddingEdgeHandling()
+ runTests()
- calculateVariance()

TestEdgeFilter

+ testEdgeDetection()
+ testApplySobel()
+ testApplyPrewitt()
+ testApplyScharr()
+ testApplyRoberts()
+ runTests()

TestGaussian2DFilter

+ testKernelGeneration()
+ testApplyGaussianBlur()
+ testBlurringEffect()
+ testSigmaImpact()
+ runTests()
- calculateVariance()

TestGaussian3DFilter

+ testGaussianKernelGeneration()
+ testApplyGaussianFilter()
+ analyzeVolumeSmoothing()
+ testGaussianFilterSmoothness()
+ runTests()
- generateGaussianKernel()
- generateTestVolume()
- initializeSimpleVolume()

TestImage

+ testLoadImage()
+ testSaveImage()
+ testLoadNonexistentImage()
+ testImageAttributes()
+ testImageData()
+ runTests()

TestMedian2DFilter

+ testApplyMedianFilter()
+ testEdgeHandling()
+ testNoiseReduction()
+ testDetailPreservation()
+ runTests()

TestMedian3DFilter

+ testApplyMedianFilter()
+ testMedianFilterEffectiveness()
+ runTests()
- calculateStandardDeviation()
- calculateEdgeStrength()

TestPadding

+ testZeroPadding()
+ testEdgeReplication()
+ testReflectPadding()
+ runTests()

TestPixelFilter

+ testGrayscaleConversion()
+ testBrightnessAdjustment()
+ testHistogramEqualization
  Effect()
+ testThresholdingGREY()
+ testThresholdingRGBHSL()
+ testThresholdingRGBHSV()
+ testNoisePercentage()
+ testNoiseAddition()
+ runTests()
- calculateHistogramStdDev()
- buildHistogram()

TestProjection

+ testMaximumIntensityProjection()
+ testMinimumIntensityProjection()
+ testAverageIntensityProjection()
+ testMedianIntensityProjection()
+ testSingleLayerVolumeProjection()
+ testNullDataProjection()
+ testZeroVolumeDataProjection()
+ runTests()

TestSlice

+ testValidSlice()
+ testInvalidSliceIndex()
+ testInvalidPlane()
+ testXYPlaneSlice()
+ testXZPlaneSlice()
+ testYZPlaneSlice()
+ testOutOfBoundsSliceIndex()
+ testNegativeSliceIndex()
+ runTests()

TestVolume

+ testVolumeConstruction()
+ testVolumeGettersAndSetters()
+ testUpdateData()
+ testLoadAndSave()
+ runTests()