**C. elegans dataset:**

**Input data (**after image preprocessing**):  
A close-up of a black and white photo

AI-generated content may be incorrect.**

**Training information:**

|  |  |
| --- | --- |
| Input image size | 30 x 30 (after resizing) |
| Image preprocessing | Grayscale, Gaussian blur, Sobel edge detection, Flatten and Normalize |
| Train-val-test | 60%-20%-20% |
| Logistic regression paramters | Learning rate = 0.01, iteration = 2000, batch size = 32, lambda = 0.1 |
| Optimizer type | Mini-batch SGD with momentum |
| Momentum | 0.9 |
| Training accuracy | 85.82% |
| Training time | 44.71 seconds |

**Test evaluation:**

|  |  |  |
| --- | --- | --- |
| Metric | Validation set | Test set |
| Accuracy | 84.45% | 85.82% |
| Execution time | 0.0 sec | 0.0 sec |

