In[36]:=
```
(*img1=Import["/Users/rhariadi/Downloads/NonPurified_6hx001.xlsx"];*)
img2 = Import["/Users/rhariadi/Downloads/Purified_6hx001.xlsx"];
```

In[37]:=
```
(*data1=Flatten[img1[[1]]];*)
data2 = Flatten[img2[[1]]];
```

In[38]:=
```
ListDensityPlot[img1[[1]]];
```

In[39]:=
```
(*sortedData1=Sort[data1];*)
sortedData2 = Sort[data2];
```

In[40]:=
```
n = Length[sortedData2]
```

Out[40]= 262 144

In[41]:=
```
(*cdfData1=Table[{sortedData1[[i]] 10^9, i/n},{i,n}];*)
cdfData2 = Table[{sortedData2[[i]] 10^9, i/n}, {i, n}];
```

In[42]:=
```
nlm = NonlinearModelFit[cdfData2,
  {a CDF[NormalDistribution[μ1, σ1], x] + (1 - a) CDF[NormalDistribution[μ2, σ2], x],
   10 > μ2 > μ1 > -5, 0 < a < 1}, {{a, 0.5}, {μ1, -1}, {σ1, 2}, {μ2, 1}, {σ2, 3}}, x]
```

Out[42]= FittedModel[0.332697 Erfc[3.23774 × (−0.369971 − x)] + 0.167303 Erfc[0.857786 × (0.643029 − x)]]

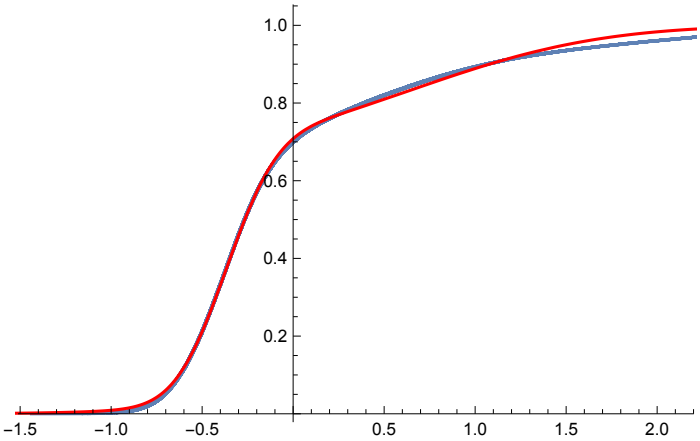
In[43]:=
```
nlm["BestFitParameters"]
```

Out[43]= {a → 0.665394, μ1 → -0.369971, σ1 → 0.218395, μ2 → 0.643029, σ2 → 0.824339}

In[44]:=
```
aFit = nlm["BestFitParameters"][[1, 2]];
μ1Fit = nlm["BestFitParameters"][[2, 2]];
σ1Fit = nlm["BestFitParameters"][[3, 2]];
μ2Fit = nlm["BestFitParameters"][[4, 2]];
σ2Fit = nlm["BestFitParameters"][[5, 2]];
```

In[49]:=
```
Show[ListLinePlot[cdfData2], Plot[aFit CDF[NormalDistribution[μ1Fit, σ1Fit], x] +
    (1 - aFit) CDF[NormalDistribution[μ2Fit, σ2Fit], x], {x, -10, 10}, PlotStyle → Red]]
```

Out[49]=



In[50]:=
```
nlm = NonlinearModelFit[cdfData2,
  {a CDF[NormalDistribution[μ1, σ1], x] + (b) CDF[NormalDistribution[μ2, σ2], x] +
    (c) CDF[NormalDistribution[μ3, σ3], x], 10 > μ3 > μ2 > μ1 > -1,
   0 < μ3 < 4,
   a + b + c == 1,
   0 < a < Min[{1, 1.2 aFit}],
   0 < b < Min[{1.2 × (1 - aFit), 1}],
   0.005 < c < 0.1,
   1.2 σ1Fit > σ1 > 0.8 σ1Fit,
   1.2 σ2Fit > σ2 > 0.8 σ2Fit,
   2 > σ3 > 0,
   0.8 μ2Fit < μ2 < 1.2 μ2Fit,
   0.8 μ1Fit > μ1 > 1.2 μ1Fit},
  {{a, aFit}, {μ1, μ1Fit}, {σ1, σ1Fit},
   {b, 1 - aFit}, {μ2, μ2Fit}, {σ2, σ2Fit}, {μ3, 2}, {σ3, σ1Fit}, c}, x]
```

Out[50]=
```
FittedModel[ 0.335584 Erfc[3.2204 × (-0.37745 - x)] + 0.144531 Erfc[1.07223 × (0.514424 - x)] + 0.0198856 Erfc[1.86165 × (
```

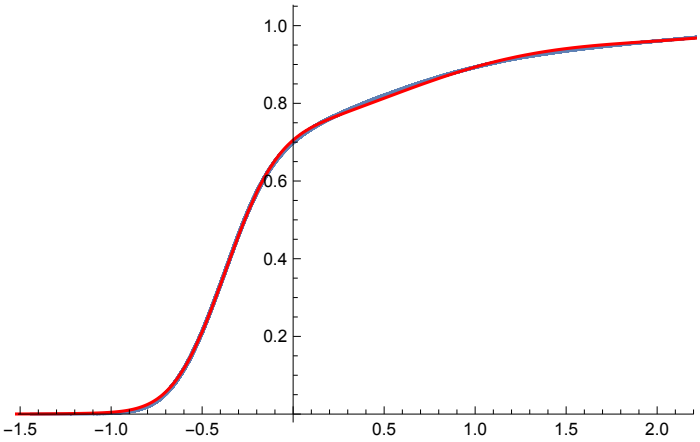
In[51]:=
```
nlm["BestFitParameters"]
```

Out[51]=
```
{a → 0.671168, μ1 → -0.37745, σ1 → 0.219571, b → 0.289061,
 μ2 → 0.514424, σ2 → 0.659472, μ3 → 2.49642, σ3 → 0.379828, c → 0.0397712}
```

In[52]:=
```
aFit = nlm["BestFitParameters"][[1, 2]];
μ1Fit = nlm["BestFitParameters"][[2, 2]];
σ1Fit = nlm["BestFitParameters"][[3, 2]];
bFit = nlm["BestFitParameters"][[4, 2]];
μ2Fit = nlm["BestFitParameters"][[5, 2]];
σ2Fit = nlm["BestFitParameters"][[6, 2]];
μ3Fit = nlm["BestFitParameters"][[7, 2]];
σ3Fit = nlm["BestFitParameters"][[8, 2]];
cFit = nlm["BestFitParameters"][[9, 2]];
```

In[61]:=
```
Show[ListLinePlot[cdfData2], Plot[aFit CDF[NormalDistribution[μ1Fit, σ1Fit], x] +
    (bFit) CDF[NormalDistribution[μ2Fit, σ2Fit], x] +
    (cFit) CDF[NormalDistribution[μ3Fit, σ3Fit], x], {x, -10, 10}, PlotStyle → Red]]
```

Out[61]=



In[62]:=
```
Show[Histogram[sortedData2 10^9],
 Plot[40 000 aFit PDF[NormalDistribution[μ1Fit, σ1Fit], x] +
   40 000 (bFit) PDF[NormalDistribution[μ2Fit, σ2Fit], x] +
   40 000 (cFit) PDF[NormalDistribution[μ3Fit, σ3Fit], x],
  {x, -10, 10}, PlotStyle → Red, PlotRange → All]]
```

General: 26846.7 1.768949895976 $\times 10^{-417}$ is too small to represent as a normalized machine number; precision may be lost.

Out[62]=