Least-Squares Normal Distribution, Example.
Objective function:

$$f(\mu,\sigma)=(\frac{1}{\sigma\sqrt{2\pi}}e^{-\frac{(155-\mu)^2}{2\sigma^2}}-0.0125)^2+(\frac{1}{\sigma\sqrt{2\pi}}e^{-\frac{(165-\mu)^2}{2\sigma^2}}-0.0375)^2$$
$$+(\frac{1}{\sigma\sqrt{2\pi}}e^{-\frac{(175-\mu)^2}{2\sigma^2}}-0.04)^2+(\frac{1}{\sigma\sqrt{2\pi}}e^{-\frac{(185-\mu)^2}{2\sigma^2}}-0.01)^2$$

Record of calculations:

dig = 10 // The number of the digits after the decimal point in the answer.
N = 10

Step 1:
mu = 170;
sigma = 8;
Initial segment for mu: [165, 175].
Initial segment for sigma: [3, 13].
The length of the segments = 10.
The length of the subsegments = 1.
Output:
Minimal value of the objective function: f = 7.4887942262736E-6
mu = 170
sigma = 9

Step 2:
Segment for mu: [169.5, 170.5].
Segment for sigma: [8.5, 9.5].
The length of the segments = 1.
The length of the subsegments = 0.1.
Output:
Minimal value of the objective function: f = 7.0393863076995E-6
mu = 170
sigma = 8.9

Step 3:
Segment for mu: [169.95, 170.05].
Segment for sigma: [8.85, 8.95].
The length of the segments = 0.1.
The length of the subsegments = 0.01.
Output:
Minimal value of the objective function: f = 6.9653871853635E-6
mu = 170.05
sigma = 8.87

Step 4:
Segment for mu: [170.045, 170.055].
Segment for sigma: [8.865, 8.875].
The length of the segments = 0.01.
The length of the subsegments = 0.001.
Output:
Minimal value of the objective function: f = 6.9646319222571E-6
mu = 170.048
sigma = 8.865

Step 5:
Segment for mu: [170.0475, 170.0485].
Segment for sigma: [8.8645, 8.8655].
The length of the segments = 0.001.
The length of the subsegments = 0.0001.
Output:
Minimal value of the objective function: f = 6.9646300546795E-6
mu = 170.0479
sigma = 8.8652

Step 6:
Segment for mu: [170.04785, 170.04795].
Segment for sigma: [8.86515, 8.86525].
The length of the segments = 0.0001.
The length of the subsegments = 1.0E-5.
Output:
Minimal value of the objective function: f = 6.964629976249E-6
mu = 170.04786
sigma = 8.86524

Step 7:
Segment for mu: [170.047855, 170.047865].
Segment for sigma: [8.865235, 8.865245].
The length of the segments = 1.0E-5.
The length of the subsegments = 1.0E-6.
Output:
Minimal value of the objective function: f = 6.9646299759093E-6
mu = 170.047861
sigma = 8.865243

Step 8:
Segment for mu: [170.0478605, 170.0478615].
Segment for sigma: [8.8652425, 8.8652435].
The length of the segments = 1.0E-6.
The length of the subsegments = 1.0E-7.
Output:

Minimal value of the objective function: f = 6.9646299759034E-6
mu = 170.0478607
sigma = 8.8652434

Step 9:
Segment for mu: [170.04786065, 170.04786075].
Segment for sigma: [8.86524335, 8.86524345].
The length of the segments = 1.0E-7.
The length of the subsegments = 1.0E-8.
Output:
Minimal value of the objective function: f = 6.9646299759034E-6
mu = 170.04786074
sigma = 8.86524342

Step 10:
Segment for mu: [170.047860735, 170.047860745].
Segment for sigma: [8.865243415, 8.865243425].
The length of the segments = 1.0E-8.
The length of the subsegments = 1.0E-9.
Output:
Minimal value of the objective function: f = 6.9646299759033E-6
mu = 170.047860742
sigma = 8.865243415

Step 11:
Segment for mu: [170.0478607415, 170.0478607425].
Segment for sigma: [8.8652434145, 8.8652434155].
The length of the segments = 1.0E-9.
The length of the subsegments = 1.0E-10.
Output:
Minimal value of the objective function: f = 6.9646299759033E-6
mu = 170.047860742
sigma = 8.865243415

Step 12:
Segment for mu: [170.04786074195, 170.04786074205].
Segment for sigma: [8.86524341495, 8.86524341505].
The length of the segments = 1.0E-10.
The length of the subsegments = 1.0E-11.
Output:
Minimal value of the objective function: f = 6.9646299759033E-6
mu = 170.047860742
sigma = 8.86524341504

Answer:
mu = 170.047860742
sigma = 8.865243415