Rudin's continuous, nowhere differentiable function on R

Clear[\(\phi\), \(f\), \(s\)]
\[\phi[x_/; 0 \leq x \leq 1] := x\]
\[\phi[x_/; 1 \leq x \leq 2] := 2 - x\]
\[\phi[x_] := \phi[\text{Mod}[x, 2]]\]

\[s[x_/; j_/; n_/] := \text{Sum}[(3/4)^i \cdot \phi[4^i \cdot x], \{i, j, n\}]\]
\[\text{Plot}[s[x, 0, 0], \{x, -4, 4\}]\]

\[s0 = \text{Plot}[s[x, 0, 0], \{x, -2, 2\}]\]

\(S_0\)
\(S_1\)
Here are the first three partial sums superimposed on each other. I've plotted the points where $x = 1/3$ and $x = 1/3+1/2$ on each of them. Note that the slope of the line connecting the pairs on each graph remains the same; namely $=1$. 

```plaintext
pts = {Point[{1/3, s[1/3, 0, 0]}], Point[{5/6, s[5/6, 0, 0]}], Point[{1/3, s[1/3, 0, 1]}],
      Point[{5/6, s[5/6, 0, 1]}], Point[{1/3, s[1/3, 0, 2]}], Point[{5/6, s[5/6, 0, 2]}]};
```
Show[s0, s1, s2, Graphics[{PointSize[0.02], pts}], PlotRange -> {0, 2}]