Let $K \subseteq \mathbb{R}$ be the unique attractor of an iterated function system. We consider the case where $K$ is an interval and study those elements of $K$ with a unique coding. We prove under mild conditions that the set of points with a unique coding can be identified with a subshift of finite type. As a consequence of this, we can show that the set of points with a unique coding is a graph-directed self-similar set in the sense of Mauldin and Williams. The theory of Mauldin and Williams then provides a method by which we can explicitly calculate the Hausdorff dimension of this set. (Received January 17, 2015)