**🥇 Best Dataset to Add: Fashion-MNIST**

**📦 Overview:**

* 👕 10 classes of clothing items (e.g., shirt, shoe, coat)
* 🖤 Grayscale, 28×28 images
* 🧪 One-class anomaly setting: pick 1 class as "normal", treat others as "anomalies"

**🔍 Why It’s Best:**

* ✅ Matches low-res grayscale structure (easy to adapt your pipeline)
* ✅ Widely used in anomaly detection literature (e.g., one-class SVM, autoencoders, deep SVDD)
* ✅ Tiny file size (~25 MB) — very fast training
* ✅ Easy to do one-vs-rest setup, e.g.:
  + Train on "shirts" only → test on mixed classes
  + Evaluate accuracy, ROC-AUC, or precision/recall

🔗 [Fashion-MNIST GitHub](https://github.com/zalandoresearch/fashion-mnist)

**🥈 Runner-up: MVTec AD (Screw or Bottle subset)**

**📦 Overview:**

* Real industrial image datasets with labeled anomalies
* Grayscale or RGB options
* Predefined train/test split: train = defect-free, test = mix

**🔍 Why It’s Strong:**

* ✅ Real-world applicability (used in many publications)
* ✅ Multiple object categories (you can pick just 1 like "screw" or "bottle")
* ⚠️ Higher resolution (~300x300) — you'll need to **downscale to 64×64** to fit your current model

🔗 MVTec AD dataset

**🧠 Bonus Option (Very Easy): MNIST**

* Great for fast testing or sanity checks
* Same structure as Fashion-MNIST
* Less “realistic” anomalies, but fast