package com.twitter.ann.annoy

import com.twitter.ann.common.RuntimeParams

import com.twitter.ann.common.thriftscala.AnnoyIndexMetadata

import com.twitter.bijection.Injection

import com.twitter.mediaservices.commons.codec.ThriftByteBufferCodec

import com.twitter.ann.common.thriftscala.{AnnoyRuntimeParam, RuntimeParams => ServiceRuntimeParams}

import scala.util.{Failure, Success, Try}

object AnnoyCommon {

private[annoy] lazy val MetadataCodec = new ThriftByteBufferCodec(AnnoyIndexMetadata)

private[annoy] val IndexFileName = "annoy\_index"

private[annoy] val MetaDataFileName = "annoy\_index\_metadata"

private[annoy] val IndexIdMappingFileName = "annoy\_index\_id\_mapping"

val RuntimeParamsInjection: Injection[AnnoyRuntimeParams, ServiceRuntimeParams] =

new Injection[AnnoyRuntimeParams, ServiceRuntimeParams] {

override def apply(scalaParams: AnnoyRuntimeParams): ServiceRuntimeParams = {

ServiceRuntimeParams.AnnoyParam(

AnnoyRuntimeParam(

scalaParams.nodesToExplore

)

)

}

override def invert(thriftParams: ServiceRuntimeParams): Try[AnnoyRuntimeParams] =

thriftParams match {

case ServiceRuntimeParams.AnnoyParam(annoyParam) =>

Success(

AnnoyRuntimeParams(annoyParam.numOfNodesToExplore)

)

case p => Failure(new IllegalArgumentException(s"Expected AnnoyRuntimeParams got $p"))

}

}

}

case class AnnoyRuntimeParams(

/\* Number of vectors to evaluate while searching. A larger value will give more accurate results, but will take longer time to return.

\* Default value would be numberOfTrees\*numberOfNeigboursRequested

\*/

nodesToExplore: Option[Int])

extends RuntimeParams {

override def toString: String = s"AnnoyRuntimeParams( nodesToExplore = $nodesToExplore)"

}