**Code Sample**

**LocalPolynomialInterpolation example 1 (Python window)**

Interpolate point features onto a rectangular raster.

import arcpy

arcpy.env.workspace = "C:/gapyexamples/data"

arcpy.LocalPolynomialInterpolation\_ga(

 "ca\_ozone\_pts", "OZONE", "outLPI", "C:/gapyexamples/output/lpiout", "2000",

 "2", arcpy.SearchNeighborhoodSmooth(300000, 300000, 0, 0.5), "QUARTIC",

 "", "", "", "", "PREDICTION")

**LocalPolynomialInterpolation example 2 (stand-alone script)**

Interpolate point features onto a rectangular raster.

# Name: LocalPolynomialInterpolation\_Example\_02.py

# Description: Local Polynomial interpolation fits many polynomials, each

# within specified overlapping neighborhoods.

# Requirements: Geostatistical Analyst Extension

# Import system modules

import arcpy

# Set environment settings

arcpy.env.workspace = "C:/gapyexamples/data"

# Set local variables

inPointFeatures = "ca\_ozone\_pts.shp"

zField = "ozone"

outLayer = "outLPI"

outRaster = "C:/gapyexamples/output/lpiout"

cellSize = 2000.0

power = 2

kernelFunction = "QUARTIC"

bandwidth = ""

useConNumber = ""

conNumber = ""

weightField = ""

outSurface = "PREDICTION"

# Set variables for search neighborhood

majSemiaxis = 300000

minSemiaxis = 300000

angle = 0

smoothFactor = 0.5

searchNeighbourhood = arcpy.SearchNeighborhoodSmooth(majSemiaxis, minSemiaxis,

 angle, smoothFactor)

# Check out the ArcGIS Geostatistical Analyst extension license

arcpy.CheckOutExtension("GeoStats")

# Execute LocalPolynomialInterpolation

arcpy.LocalPolynomialInterpolation\_ga(inPointFeatures, zField, outLayer, outRaster,

 cellSize, power, searchNeighbourhood,

 kernelFunction, bandwidth, useConNumber,

 conNumber, weightField, outSurface)