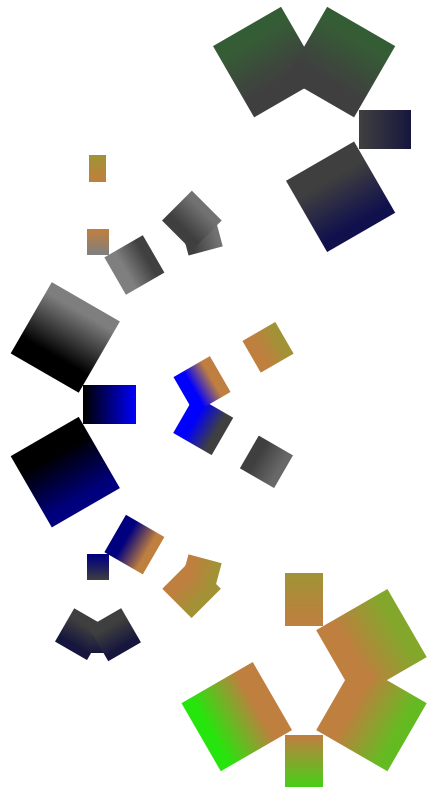


Welcome to CLAWRIM

The Computing Lab for Advanced Water Resources Informatics and Modeling (CLAWRIM) is [Dr. Huidae Cho](#)'s research group in [the Department of Civil Engineering](#) at [New Mexico State University](#) (NMSU). Their research focuses around the broad applications of Geographic Information Systems (GIS) and computational methods to water resources informatics and modeling. They use this wiki site to share project information and document their research for internal collaboration.



Research opportunities in CLAWRIM

- [Research opportunities in CLAWRIM](#)

Scholarships

- [Scholarships](#)

CLAWRIM seminar series

- TBD [Students are welcome!](#)

CLAWRIM lecture series

- [Shell scripting](#)

Current projects

- [CONUS-scale longest flow path algorithm](#)
- [PARETO](#)
- [GRASS OSE](#)
- [Northern New Mexico watershed modeling](#)
- [New Mexico culvert capacity analysis](#)
- [New Mexico hydrologic modeling](#)
- [Hydrologic forecasting](#)
- [Quantifying the effects of watershed restoration as a flood mitigation approach with Emaz Arshad](#)
- [Efficient delineation of a large number of watersheds](#)

Past projects

- [Fast flow accumulation](#)
- [Water balance analysis for Seoul](#)
- [Google Summer of Code 2021 Parallelization of existing modules for GRASS GIS](#)
 - Funded by [Google](#)
- [ProjPicker](#): Spatial query of coordinate reference systems
 - Funded by [IESA](#)
- [Efficient longest flow path algorithm](#)
- [GFC canopy assessment](#)
 - Funded by [the Georgia Forestry Commission](#)
 - [Phase 1](#) with [Owen Smith](#) and [Jennifer McCollum](#)
 - [Phase 1.5](#) with [Owen Smith](#)
 - [Phase 2](#) with [Owen Smith](#)
- [Open source canopy classification](#) with [Owen Smith](#)
 - A special topic in GIS for spring 2020
 - Idea proposed and implemented by [Owen Smith](#)

Projects cancelled

- [Traffic simulation](#)
- [Streamflow data model](#)
- [Stream health assessment tool](#)
- [Impacts of deforestation on water resources in the Lake Lanier watershed](#)
- [UNG stormwater modeling](#) with [Christopher Pugel](#)
 - Idea proposed by [Huidae Cho](#)
- [Topographic index enhanced with soil moisture](#)
 - A special topic in GIS for spring 2020
 - Idea proposed by [Huidae Cho](#) and partially implemented with [Tyler Henderson](#)

Software

- [MEFA](#): Memory-efficient flow accumulation
- [GetOSM](#): OpenStreetMap tile downloader
- [ProjPicker](#): Spatial query of coordinate reference systems
- [r.accumulate](#): An efficient flow accumulation addon for [GRASS GIS](#)
- [Coronavirus Disease 2019 \(COVID-19 or 2019-nCoV\) Cases](#)
- [CanoClass](#): An open-source Python module for canopy classification using [scikit-learn](#)
- [CanoPy](#): A Python module for canopy classification using [Feature Analyst](#)
- [Digip](#): A digital image processing Python module
- [The Automated Floodway Optimizer for HEC-RAS \(AFORAS\)](#)
- [Isolated-Speciation-based Particle Swarm Optimization \(ISPSO\)](#)
- [The Web-based Hydrologic Modeling System \(WHydroMod\) v0.1 for Texas](#)
- [Let-It-Rain](#): A Poisson Cluster Stochastic Rainfall Generator
- [GRASS GIS](#) for MS Windows
 - [Latest daily build for advanced users](#)
 - [Latest daily build for beginners](#)

Other resources

- [Data sources](#)
- [Conferences](#)
- [Journals](#)
- [Scientific writing](#)

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