Luis Cueva Parra
University of North Georgia

Role: Assistant Professor of Computer Science and XSEDE Campus Champion

Research Area: Scientific Computing and Computational and Data Science.

Current Research Project: "Developing a Framework for Real-time Hyperspectral image segmentation."

Framework is based on ML/DL algorithms. The prototype will be in MATLAB. The production code will be open source code (TensorFlow or Pytorch) and optimized with HPC tools for speed-up and real-time interaction. Images will be analyzed and stored in a database as they are obtained.

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Challenges:

- Establish the optimal workflow.

- Use of the proper HPC tools for real-time operation.

- Exploring user friendly interface (Considering Gateways).

SDSC Summer Institute attendance goal:

- Review current HPC and ML/DL tools.

- Look for collaborators.

- Be familiar with current SDSC resources (XSEDE resource provider) and how to access/use them for helping potential XSEDE users in my campus.