



Student Scholarship Internship Opportunity (SSIO) Online System

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SSIO 2022 Internship Opportunity Position

Internship Information

Project title: Climate Impacts to Commerce

NOAA mission goal: Climate Adaptation and Mitigation

Hypothesis or objectives: The candidate will work to identify new solutions to providing climate impact summaries to support commerce. Tasking will involve transforming legacy applications which compute global climate stations summaries to an efficient cloud implementation. These include summaries of Mixing Height for EPA and particulate dispersion models, various Flying Conditions which support shipping and travel industries, Wind Speed and Direction which support aviation and airport construction, and other summaries which include Temperature, Pressure, Relative Humidity, Weather Condition and Precipitation. The candidate will choose a summary of interest and develop a new innovative solution that leverages cloud technology.

Academic status: Graduate

Estimated start - end date: May 2022 - August 2022

Duration: 4 months

Area(s) of discipline: Computer And Information Sciences

Internship location: Asheville, NC

Duties and responsibilities:

- 1) Evaluate existing summary calculation source code.
- 2) Identify a summary or summaries for analysis
- 3) Evaluate possible technical solutions including but not limited to (Graph database, etc.)
- 4) Document and prototype solution
- 5) Compare new innovation with existing implementation to outline efficiencies and accuracy.
- 4) Work with staff to document implementation plan for other summaries.

Special skills/training required: Demonstrated competency in computer and information sciences.
Understanding of project management processes
Understanding of statistical analysis.
Understanding of software development

Expected outcomes: Student will gain competency in data management and data stewardship.
Student will gain project management skills.
Student will understand Agile software development methodology.
Student will improve understanding of climate science
Student will gain a greater appreciation of impacts of climate on US and global commerce.

Guidance and supervision: Overall project guidance will be from the project sponsor. Weekly reporting is expected to keep the student on track. Technical leads will be involved with scoping the effort on a daily basics.

Application package: Letter of recommendation/or names of references
Resume
Unofficial transcript
Cover letter

Posted or modified date/time: Friday, October 1, 2021 - 11:16:00 AM

Internship Travel Information

Purpose (student's role): ---

Mode of transportation: ---

Date(s): ---

Destination: ---

Estimated cost: ---

Source of funding: ---

Mentors Contact Information

Name: Rich Baldwin

Organization: National Environmental Satellite,
Data, and Information Service
(NESDIS)

Program office: NCEI

Mailing address: 151 Patton Ave
Asheville, NC 28801

Fax number: None

Phone number: 828-271-4094

Email: rich.baldwin@noaa.gov

Co-Mentor name: Rich Baldwin

Co-Mentor email: rich.baldwin@noaa.gov

Agency or organization: NOAA/NCEI



Admin Action

Submitted internship: **Approve**
 Disapprove

Additional comment(s):
(300 characters max)

Accepted for a minimum 3-month EPP NERTO internship. Requires: a workplan developed by CSC and NOAA mentor; substantial engagement with NOAA mentor; and, NOAA-aligned professional development. Queries are sent to: oed.epp10@noaa.gov.

Admin Initials (required):

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