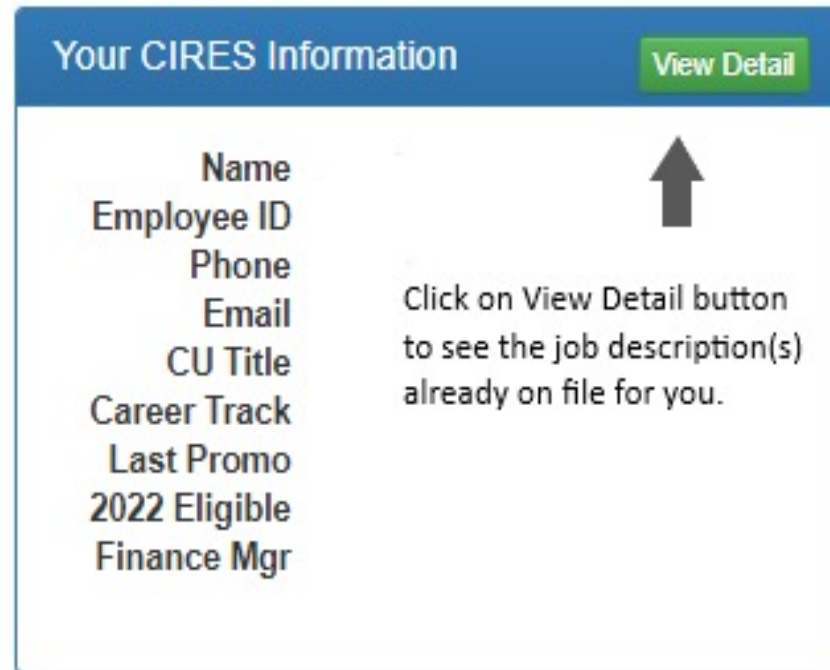# Compensation Structure
Position Description

Research Scientist career track

Fall 2021

CIRES HR extends our gratitude to our Pilot Group Volunteers!

Find you CIRES information in InsideCIRES:

- Go to https://insidecires.colorado.edu/ and find your information box in the top right corner.

CIRES Compensation Project – Position Description Template

Employee Name: Jacob Martinez

Date: 09/29/2021

Position Title/Working Title: Integrated Data Assimilation and AI Researcher

How would you best describe your role? Research Scientist

    If other role, describe here: _____

Area of Primary Research/Discipline: Atmospheric & Oceanic Sciences

    If other area of primary research/discipline, describe here: _____

CIRES Unit: NOAA PSL

    If in a research group, please indicate name of the research group here: _____

CU Job Title: Research Associate

CIRES Career Track Title: RS 2

Last Career Track Promotion Date or Hire Date: 05/01/2019

Do you supervise other employees: Yes

Reports to: Jane Theander

Job Summary:

The NOAA Physical Sciences Laboratory (PSL) conducts research to improve observations, understanding, modeling and predictions of weather, water and climate extremes, and their related impacts. The Integrated Data Assimilation and AI Researcher position is responsible for the development of novel data assimilation capabilities using new advances in artificial intelligence and machine learning. Research areas include model emulation, forecast error covariance estimation, assimilation of high-resolution satellite data, and enhancement of data assimilation solution methods. These will all be developed with the targeted goal of producing a coupled atmosphere-ocean data assimilation capability for applications such as hurricane forecasts and sub seasonal-to-seasonal prediction.

Job Duties (Assign % to overarching areas of responsibility, totaling 100%):
To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

•Start each function with an action verb, e.g. confers, coordinates, examines, performs, supervises, directs, observes, etc.
•List 4-10 of the top functions in order of importance/most frequently performed. (This is not an exhaustive task list)
•End with this statement "Performs other duties as necessary."

•*(25%) Owns an original effort in the development of new data assimilation methodologies that integrate artificial intelligence and machine learning.*
•*(25%) Performs supportive activities such as software development, conducting experiments using high-performance computing and cloud computing, and pre and post-processing of data as needed for analysis and visualization.*
•*(20%) Participates in regular discussion sessions with collaborators.*
•*(20%) Publishes results in peer-reviewed journals.*
•*(10%) Performs other duties as necessary.*

Supervisory duties (if applicable):

- Directly manages x, y, z - list the names of direct report(s)
- (OR None)

- *Directly manages Jonathan Peters; Caroline Salcedo; Sylvia Trent and Elijah Johnson.*

Minimum Requirements:

Education:

- *A relevant Ph.D. degree is required for this role.*
- *A PhD in Mathematics, Data Science, Oceanic, Atmospheric Science or other relevant field is required.*

Minimum Requirements:

Experience

•Include the minimum experience that is required on Day 1.
•Include minimum years of experience if appropriate.
•Be sure to end each sentence with "is required."
•Examples for this section may include:

- *At least five years of related work experience is required.*
- *Experience in one or more fields is required: Data Assimilation, Mathematical Optimization, Atmospheric or Oceanic Science, Applied Mathematics and Statistics, Computer Science, Computational Science, Artificial Intelligence / Machine Learning.*
- *Experience with scripting and object oriented programming languages is required.*

Required Knowledge, Skills & Abilities:

- (Always start with this statement): Ability to consistently promote, support, work, and act in a manner in support of CIRES's vision, mission and values.
- Consider any required certifications - include in this section.
- Do not list more than 10. These should be things the individual should be able to do, but is NOT a duty statement.
- Should start each sentence with: Knowledge of ……. Or Skill with…..or Ability to. You can put an adjective in front such as Strong knowledge of.
- Don't put in anything that is going to be required in the education/experience section. These should not be preferred items.

Examples for this section include:
- *Ability to consistently promote, support, work, and act in a manner in support of CIRES's vision, mission and values.*
- *Strong skill with data processing and visualization.*
- *Knowledge of dynamical and geophysical systems.*
- *Expertise with high performance computing and/or cloud computing.*
- *Excellent verbal and written communication skills.*
- *Strong knowledge of computer engineering principles and procedures.*
- *Ability to manage time and prioritize tasks.*

Guidance to Employee and Supervisor, please keep in mind the following items:

•This position description is independent of the person currently serving in the role: What qualifications does it take to carry out the designated responsibilities?
•The supervisor is ultimately responsible for assigning duties and is therefore the final decision maker.
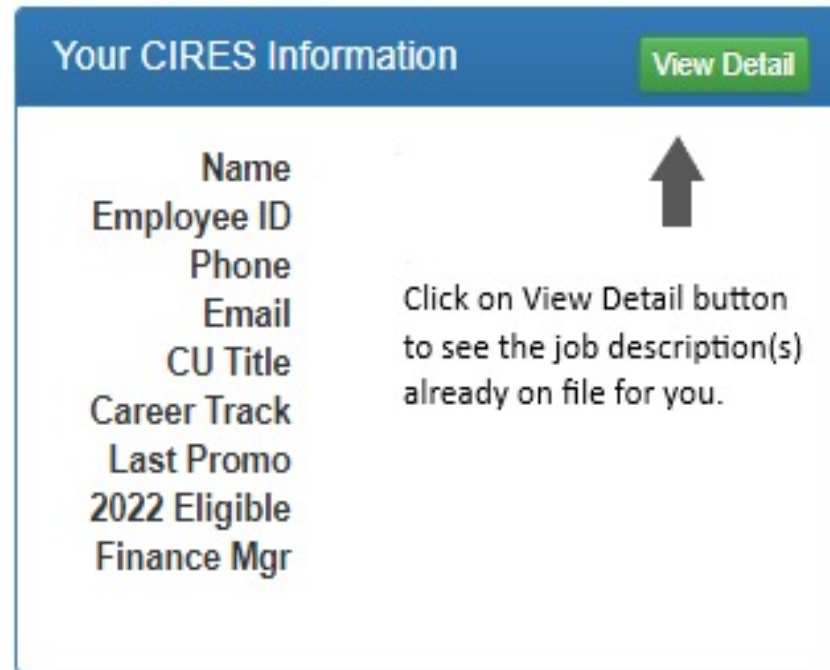
Employee Signature: _____   **Date: _____**

Supervisor Approval: _____   **Date: _____**

Download, complete, sign, and upload your Position Description

- Go to https://insidecires.colorado.edu/ and find your information box in the top right corner. Click on "View Detail" to see instructions on how to download and complete the template, sign your position description and upload it to InsideCIRES.

Your CIRES Information | View Detail

Name
Employee ID
Phone
Email
CU Title
Career Track
Last Promo
2022 Eligible
Finance Mgr

↑

Click on View Detail button to see the job description(s) already on file for you.

Completing, Signing, and Uploading your Position Description:

Posiiton Decription for CIRES Compensation Project

Please follow the directions below to upload your Position Description as part of the HR Compensation Project.

- Download the position description template.
- Edit the template to match your position description.
- Sign the document in DocuSign and route it to your supervisor. See instructions here.
- Once you have received the signed document, upload it to InsideCIRES by clicking on the button below.

File to Upload (PDF less than 5 MB)

| Choose File | No file chosen |

Submit   *Note: you will not be able to modify your position description once you have uploaded it. Contact CIRES IT if you need assistance.*

=> Uploaded descriptions will be reviewed and approved by CIRES HR for final acceptance. We may reach out with questions or suggestions for edits prior to final acceptance.

Deadline: Friday, November 12th

Questions?

Please email cireshr@colorado.edu if you have a question, or if you would like to schedule some time to meet with a CIRES HR member to ask your questions.

CIRES HR can also meet with individual units if helpful.

We are here to support this process!

Thank you for your partnership in supporting this important project!