

# Gerardo Hidalgo-Cuellar

365 32nd Street □ Boulder, CO, USA 80305 □ +1.303.396.8169 □ [ghidalgo93@gmail.com](mailto:ghidalgo93@gmail.com)

## Profile

I am an Astrophysical and Planetary Sciences graduate from the University of Colorado Boulder. I have experience working in the **software industry, and a desire to grow this experience and contribute to a strong team.** Specifically, I aim to utilize my academic and professional training in **technical communication, programming in both C++ and Python, and data science** to improve existing software and create efficient software.

## Education

**Bachelor of Arts, Astrophysical and Planetary Sciences**

Space Minor through Aerospace Engineering

**University of Colorado, Boulder**

*Degree Conferred: May 2017, GPA 3.9*

## Software Experience

**Software Engineer Intern**

*Boulder, CO.*

**LASP (Laboratory for Atmospheric & Space Physics)**

*May 2015 - November 2015*

- Increasing efficiency and speed of data bussing systems from different scientific instruments, the majority of these being satellites controlled by LASP.
- Creating better user interfaces for existing system telemetry programs.
- Development in both Python and C++.

**Enhanced Skills:** C++, Python, SQL, unit testing, individual and team programming.

**Undergraduate Research Assistant**

*Analysis & Composition of Diffuse Intergalactic Clouds*

**University of Colorado, Boulder**

*May 2014 - May 2017*

- Retrieval and analysis of spectral data from the Hubble Space Telescope.
- Data were retrieved using SQL and those data were processed by taking molecular composition of diffuse gas clouds found at specific distances, indicating whether or not they were intergalactic in nature.

**Enhanced Skills:** SQL, technical writing, grant/proposal writing, data analysis.

## Professional Experience

**Science Educator**

*Idyllwild, CA.*

**Astrocamp, Guided Discoveries**

*January 2018 - May 2019*

- Science educator/instructor with a focus on physics and astronomy. Development of curriculum, teaching of technical material, and handling experiments.
- Outdoor education, ropes-course technician (safety and management), and youth management. Guiding a group of students (grades ranging from 3-12th) for 3-14 days year-round.

**Enhanced Skills:** Communication of technical topics, teaching to a variety of ages, time management, curriculum development.

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## Planetarium/Science Presenter

Boulder, CO.

## Fiske Planetarium

August 2013-May 2015, February 2017-May 2017

- Presented and put together astronomy, physics, geology, as well as biology planetarium shows for audiences of all ages and communities around the Boulder area, ranging from college students, primary education, families, and adults.
- Helped develop educational astronomy labs for use within the planetarium as well as for outreach around Boulder.

**Enhanced Skills:** Curriculum development, Python, technical writing and communication, outreach.

## Laboratory and Learning Assistant

Boulder, CO.

## University of Colorado, Boulder

*Physics of Light and Color*

January 2017 - May 2017

- Helped to facilitate a Physics of Light and Color course for 6 lecture/lab hours and 4 office hours a week. Held weekly office hours, test review sessions, was in the classroom daily and helped develop a weekly review session for students struggling with material.
- Worked with faculty to ensure students in the classrooms were continuously problem-solving and having thoughtful discussions

**Enhanced Skills:** Curriculum development, LaTeX, technical writing, problem solving.

## Skillset

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- **Programming & Development:** C, C++ Python, unit testing, object oriented programming.
  - **Database:** MySQL, SQL Server, large data manipulation.
  - **Operating Systems:** Linux, MacOS, Windows.
  - **Hardware:** Raspberry Pi, Arduino, circuit design.
  - **Communication & Interpersonal:** Planetarium presenter, physics and astronomy educator, ropes course and climbing gym safety education/management. Discussing technical topics to a variety of ages and audiences.
  - **Research:** Grant and proposal writing, collection of biological samples, scuba certification, operating lab equipment.
  - **Language:** Fluent in Spanish

## Honors, Awards, and Accomplishments

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- Wrote for and received individual UROP Grant (Undergraduate Research Opportunities Program) *Fall 2012-Spring 2013*.
  - Wrote for and received group UROP Grant, *Summer 2013 & Spring 2014*.
  - Wesley Scholarship (APS - Astrophysics and Space Astronomy) *Spring 2015*.
  - Dean's List 9 semesters, with Dean's List Scholarships.