

Melanie Hopek

Denver, CO

720-999-4189

Melanie.hp@gmail.com

OBJECTIVE

I am an inspiring scientist with 2+ years of Research Assisting from the University of Colorado in Boulder. In addition, I have 5+ years of lab experience working directly with various specimens and analyzing those specimens inside and outside of cleanrooms, 1+ year experience using ArcGIS, MATLAB and R programs. I have 1.5 years of experience logging and analyzing sediment/coal cores, sampling groundwater from wells, sampling sediments and rocks, analyzing the flowrates of streams.

EDUCATION

University of Colorado –
Boulder

Bachelor Science in Geology

Graduation: May 2019

Courses and Field work:

- Calculus I & II
- General Chemistry I & II with labs
- Physics I & II
- Experimental Physics Lab
- Hydrogeology Course and 16
Week Field Course
- Intro to Field and Geologic
Mapping
- Structural Geology
- Sedimentology
- Stratigraphy
- Earth History
- Statistics for Geography
- Earth Materials
- Paleobiology
- Planet Earth
- Fluid Earth
- GIS for Geologists
- Active Tectonics Field

Front Range Community
College

Associates of Science

Honors: Dean's List

Graduation: May 2015

EXPERIENCE

January 2019 – Present

Lab Technician • Ellipse Analytics

My job duties entail precisely massing samples, following various Standard Operating Procedures (SOP's) for testing of BPA, ACR, Glyphosate, minerals, metals, vitamins, and antioxidants. These preparations follow ISO procedures/guidelines for LCMS, GCMS and Statfax instruments. Additionally, analyzing the data and presenting it to the senior chemists. Lastly, constructing SOP's and method development for future testing.

January 2017 – August 2019

Research Assistant • COSINC-CHR

My jobs duties entail aiding Ph.D. students, researchers, undergraduate students, staff at the University of Colorado - Boulder, and external companies with their research. I have helped numerous clients compose research grant proposals, prepare plans to construct their research, prepare specimens and imaging specimens with Scanning Electron Microscopy (Hitachi SU3500 with Oxford EBSD, Joel JSM 6480 with Noran EDS, FeSEM Joel JSM 7401-F with Noran EDS) and analyzing their results. The Oxford EBSD has been used to help Kevin Mahan (Geologic researcher at the University of Colorado - Boulder) date, determine the pressure and temperature at which minerals deform and locate grain boundaries in thin sections.

August 2015 – April 2019

Quality Control Manager • Mad Science of Colorado

My job duties were managing the lab and lab equipment, preparing solutions and specimens for future use, constructing and modifying lessons plans, procedures, protocols and SOP's. Additionally, presenting the change in procedures and protocols when needed.

KEY SKILLS —

- Project Management
- Proficient in Microsoft products
- Programs: MATLab, R, and ArcGIS
- Detail oriented
- GMP
- Excellent written and oral communication skills
- Local and independent mind

GEOLOGIC KEY SKILLS —

- Field work in aquifers and wells, sedimentary structures analysis, and active tectonics in Colorado and California
- Scanning Electron Microscopy
- Sampling groundwater from wells, analyzing the flowrates of streams and rivers
- Sampling sediments and rocks
- Programs: MATLab, R, and ArcGIS

VOLUNTEER

Adams County Foster System

Frost Care Annual Christmas Party Host and Planner

March 2017 – January 2018

I partnered with the Foster Care System in Adams County Colorado aiding the preparation and hosting of the Christmas party for the children and families within the system. I recruited and led a team of volunteers prior to the event and during the event by holding multiple meetings and communicating via email and phone.

INTERNSHIPS

University Rover Challenge ♦ Mars Society – Mars Desert Research Station

Robotics Judge

May 2018 – June 2018, May 2019 – June 2019

Judging the Mars rovers that were built to compete in the University Rover Challenge held at the Mars Desert Research Station.

Managing large groups, preparing events and obstacle courses for Mars Rovers to complete.

<http://urc.marssociety.org/home>

REFERENCES

Kevin Mahan
Associate Professor – Geological Sciences
University of Colorado
Boulder, CO 80309
303-492-2755 | Kevin.Mahan@colorado.edu
Previous Professor and Client at COSINC-CHR
January 2016 to Present

Robert Anderson
Distinguished Professor – Chair of the Geological Sciences at University of Colorado in Boulder
University of Colorado – Boulder and INSTAAR
Boulder, CO 80309
303-735-8169 | Robert.S.Anderson@colorado.edu
Previous Professor and Fellow Researcher
January 2016 to Present

Tomoko Borsa
Engineer and Lab Manager at COSINC-CHR
COSINC-CHR
Boulder, CO 80309
303-735-6815 | borsa@colorado.edu
Boss at COSINC-CHR
January 2017 to Present