**Colby P.**

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**EDUCATION**

**American University, School of International Service Washington, DC**

*Master of Arts in International Development* *May 2024*

**Colorado State University, Walter Scott, Jr. College of Engineering Fort Collins, CO**

*Bachelor of Science in Environmental Engineering* *May 2019*

**DATA ANALYSIS EXPERIENCE**

**Programming**

* Developing proficiency in R and R Markdown, especially tidyverse package (over 100 hours)

**Wrangling**

* Experienced at cleaning, merging, and reshaping data in both R and Excel
* Comfortable with dealing with missing values, lengthening pivots, widening pivots, and recoding variables

**Analysis**

* Created visualizations and custom themes in ggplot2
* Replicated images using ggplot2 when given the datasets used to create them
* Produced descriptive and linear regression analyzes of variables of interest
* Developed Beamer presentation and posterdown academic poster in R Markdown
* Generated functions in R to automate routinely used code

**CIVIL ENGINEERING EXPERIENCE**

**Natural Resources Consulting Engineers, Inc. (NRCE) Fort Collins, CO**

*Associate Engineer* *July 2019 – Present*

**Engineering Analysis:**

* Contributed to USAID water, sanitation, and hygiene (WASH) activity by analyzing water quality data and by reviewing the activity budget spreadsheet
* Designed water supply pipelines and pump stations in Excel
* Performed Practicably Irrigated Acreage (PIA) analyses for the adjudication of Indian water rights
* Completed economic cost-benefit ratio analyses
* Analyzed irrigation water quality data in Excel

**Modeling:**

* Delineated the terrain of an entire Indian Reservation in GIS software
* Created a working model of a floodplain in HEC-RAS modeling software
* Designed irrigation systems in IRRICAD
* Created multiple crop evapotranspiration models in Excel
* Wrote VBA code to generate irrigation canal damage reports in Word
* Proficient at Excel, QGIS, AutoCAD, Civil 3D, IRRICAD, and HEC-RAS software

**RELEVANT COURSEWORK**

Data Analysis, International Affairs Statistics and Methods, Water Quality Analysis and Treatment, Project Design, Monitoring and Evaluation, Economic Development**,** Professional Development Management, International Development, Project Management, Professional and Technical Communication