City of Idaho Springs

CS Field Session Proposal (CSCI 370)

Colorado School of Mines • Summer 2026

Project Title	Idaho Springs Economic Impact Dashboard
Primary Stakeholder	City of Idaho Springs
Submitting Organization	City of Idaho Springs
Contact	Sadie Schultz, Director, Business & Community Promotions Board
Preferred Team Size	3–5 Students
Work Location	Fully Remote; optional in-person in Golden or Idaho Springs
Internship Potential	Continued engagement possible post-Field Session

Project Background

The City of Idaho Springs is undergoing a remarkable transformation. Long viewed primarily as a convenient I-70 exit on the way to Colorado's high-country ski resorts, Idaho Springs is actively reinventing itself as a year-round outdoor recreation destination - and the investments are significant.

Three major capital projects are reshaping the visitor experience and the local economy:

- Trek Trails at Virginia Canyon Mountain Park (VCMP): an 8-year, multi-million-dollar effort led by COMBA in partnership with the City and the Argo Mine. Currently open with approximately 14–15 miles of world-class singletrack trails (blue, black, and double-black rated), the park is part of a 28-mile master plan spanning 400+ acres. Funded by Trek Foundation, the Mighty Argo project, and other partners, VCMP has established Idaho Springs as a world-class mountain biking destination.
- The Mighty Argo Cable Car: a $71M European-style gondola constructed in collaboration between the Argo Mill and Tunnel, the City of Idaho Springs, and COMBA. The 1.2-mile gondola ascends 1,300 vertical feet to the top of VCMP, providing lift-served access to the trail system for mountain bikers, hikers, and sightseers. Free for residents, ticketed for visitors, the cable car represents an anchor attraction that dramatically increases the park's appeal and capacity, particularly for those who cannot or prefer not to climb.
- Idaho Springs Skatepark: an 11,500 sq. ft. state-of-the-art skatepark developed by Clear Creek Metropolitan Recreation District (CCMRD) and the City in partnership with New Line Skateparks. Designed as Phase I of a broader Sports and Events Complex master plan, the skatepark includes a street-course/plaza hybrid and a pool-style bowl, and is envisioned as a community gathering destination for locals and visitors alike.

The city is gathering visitation and spending data from multiple sources, including Placer.ai and supplemental datasets, but currently lacks the tools to analyze and communicate this data in a dynamic, sustainable way to assist with decision-making.

This project seeks to develop a living, data-driven economic impact dashboard that can ingest updated data feeds, analyze key signals, and present actionable insights about how these investments are changing the economic trajectory of Idaho Springs. The city's Business & Community Promotions Board will lead this effort and manage the data sets.

Description of Work to Be Done

The student team will design and develop a dynamic, data-driven Economic Impact Dashboard for the City of Idaho Springs. The goal is not to produce a static report, but rather an updatable platform that will serve as an ongoing decision-making tool for city leadership, local businesses, realtors, grant writers, and community stakeholders for years to come.

The project has three primary components:

1. Data Integration & Analytics Pipeline

Students will build a backend data ingestion and processing pipeline capable of consuming, normalizing, and storing data from multiple sources such as:

- Placer.ai: foot traffic and visitor analytics (visitation counts, visitor origin geographies, dwell time, trade area analysis, cross-shopping behavior)
- Sales tax and business revenue data provided by the City of Idaho Springs
- Trail usage data from Trailforks, Strava, and/or manual trail counter exports
- Lodging occupancy data (STR/AirDNA or city-supplied hotel tax collections)
- Colorado gondola/cable car ridership data from the Mighty Argo team
- Additional supplemental datasets as identified (U.S. Census, BLS employment data, Colorado Department of Revenue)

The pipeline must support periodic data refreshes either through automated API connections where available, or through structured CSV/file uploads, so the dashboard remains current over time without significant manual effort.

2. Interactive Dashboard & Data Visualization

Students will design and build a polished dashboard that visualizes economic impact across several interconnected dimensions. The dashboard should be intuitive enough for non-technical audiences (city council members, business owners, realtors) while providing sufficient depth for analysts and grant writers.

Potential dashboard modules and metrics are outlined below, but may be modified as the project teams dive in:

Dashboard Module	Key Metrics & Visualizations	Primary Audience
Visitation & Foot Traffic	Total unique visitors (daily/monthly/YoY), visitor origin heat maps, dwell time, seasonality trends, repeat vs. first-time visitors	City leadership, tourism board

Retail & Dining Impact	Sales tax revenue trends by business category, spending per visitor, before/after comparison since 2022 trail opening	Local business owners, city finance
Lodging & Hospitality	Hotel/short-term rental occupancy rates, average length of stay, revenue per available room (RevPAR), weekend vs. weekday split	Hotel operators, city planning
Real Estate Trends	Median home values by proximity to park, year-over-year price changes, Days on Market trends, new listings volume	Realtors, developers, city planning
Trail System Engagement	Trailhead visitation counts, trail-specific traffic (Trailforks/Strava data), user demographics, peak usage hours	COMBA, parks staff, trail funders
Cable Car & Argo Impact	Gondola ridership over time, correlation to downstream spending, ticket revenue if available, visitor conversion to businesses	Argo Mine team, city council
Skatepark Utilization	Daily/weekly usage counts, age demographic data, event days vs. regular traffic, geographic origin of visitors	Parks & rec, city council, CCMRD
Comparative Benchmarking	Idaho Springs vs. comparable trail towns (Fruita, Salida, Golden), growth rate comparisons, national MTB tourism benchmarks	City leadership, grant writers

The dashboard should support time-series filtering (e.g., compare summer 2023 vs. summer 2025), geographic drill-down by business district or neighborhood, and the ability to generate exportable summary reports. Interactive charts, maps, and KPI callout cards are expected elements. Inspiration for design and scope may be drawn from comparable civic impact dashboards such as the Steamboat Springs Tourism Dashboard, but the students should not allow existing civic products to limit their creativity.

3. Methodology Documentation & Impact Narrative

A dashboard without context is just numbers. Students should develop methodology documentation explaining how each metric is calculated, what data sources are used, the limitations and confidence levels of the analysis, and how to interpret the results. This documentation will allow the City to defend the analysis to stakeholders and grant funders.

Students are also encouraged to develop a brief “State of Idaho Springs” narrative view within the dashboard: a summary-level story that contextualizes the data for public audiences and elected officials. Comparable national benchmarks (e.g., average mountain bike visitor spends $416 per trip; trail proximity increases property values by 5–10%; Bentonville trails generate over $13M annually in visitor spending) should be woven in to help Idaho Springs understand where it stands relative to peer communities.

Why This Matters	Mountain bike visitors spend an average of $416 per trip (Trust for Public Land, 2025). Trail proximity increases residential property values by 5–10% in comparable communities.

Bentonville, AR's trail network generates $13M+ in annual visitor spending and has transformed the regional economy.

Placer.ai-powered dashboards have helped cities win $100K+ in grant funding by quantifying community impact.

Idaho Springs has never had a systematic, data-driven tool to measure and communicate this story - until now.

Desired Skill Set

This project sits at an exciting intersection of data engineering, full-stack development, and civic data visualization. Students are not expected to bring expertise in every area; a major part of the value of Field Session is learning and growth! The following skills are relevant:

Core Technical Skills

- Front-end development (React, Next.js, or similar) for building the dashboard UI
- Back-end development (Node.js, Python/FastAPI, or similar) for the data pipeline
- Database design and querying (PostgreSQL, SQLite, or similar; experience with time-series data a plus)
- REST API integration - consuming third-party data APIs (Placer.ai, Trailforks, Strava Metro, etc.)
- Data visualization libraries (D3.js, Recharts, Chart.js, Mapbox/Leaflet for geospatial views, or Tableau/Power BI as an alternative)

Valuable Supporting Skills

- Interest in data science, statistics, or econometrics - particularly around economic impact modeling
- GIS / geospatial data experience (mapping visitor origin data, real estate overlays)
- ETL (Extract-Transform-Load) pipeline design and automation
- Cloud deployment basics (AWS, GCP, Vercel, or similar) for hosting the dashboard
- UI/UX design sensibility - the dashboard must be usable by non-technical city staff and business owners

Soft Skills & Mindset

- Comfort working with real-world, messy, incomplete data
- Curiosity about civic technology, economic development, and community impact
- Strong communication skills - students will present findings directly to city officials and stakeholders
- Collaborative, self-directed work style suited to a remote Field Session environment

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Preferred Team Size

3–5 students. A team of four is ideal, allowing for division of work across data pipeline, front-end development, geospatial/analytics, and documentation/presentation without overstaffing a focused project.

Potential Internship Opportunity (Optional)

There is meaningful potential for continued involvement beyond Field Session. The City of Idaho Springs anticipates ongoing needs for dashboard maintenance, new data integrations, and expanded analysis modules as the trail system continues to build out through 2027 and beyond. Depending on the results of the project, students who demonstrate strong performance during Field Session could be considered for paid part-time or summer internship engagements. The Mighty Argo Cable Car team and local business improvement organizations have also expressed interest in partnering on expanded future analysis.

Location of Work

Work can be completed fully remotely. The team will participate in periodic virtual check-ins with City of Idaho Springs staff, leadership, and partners. Optional in-person site visits to Idaho Springs (approximately 35 miles west of Denver on I-70) are encouraged but not required. Seeing the trail system, the gondola, and the skatepark firsthand tends to be inspiring. Students should plan for at least one site visit at project kickoff.
