Hannah Siegel

hannahsiegel87@gmail.com | 971-294-2754 | Portfolio | LinkedIn | GitHub | Portland, OR (Relocation Available)

SUMMARY

Data science and geography student specializing in geospatial analysis, with strong expertise in GIS tools, Python, and cartographic design. Experienced in analyzing environmental, land use, and urban planning patterns through remote sensing and spatial analysis, with a passion for sustainability and environmental challenges.

EDUCATION

B.S. Data Science, Spatial Data Science – University of Oregon **Expected graduation: June 2026**
Minors: Geography, Climate Studies

Cumulative GPA 3.9/4.0 – Dean's List all semesters

Relevant Courses: GIScience, Remote Sensing, Data Science, Machine Learning, R, Data Visualization, Computer Science, Stats for Data Science, Linear Algebra

SKILLS

- **Software:** ArcGIS Pro, QGIS, R, Python (Pandas, GeoPandas, ScikitLearn, visualization packages), SQL, Excel, Tableau
- **Geospatial Analysis:** Cartographic design, spatial analysis, remote sensing, LiDAR processing, geospatial databases
- **Data Analysis:** Prediction, classification, modeling, data cleaning & EDA, visualization, dashboard creation
- **Professional Skills:** Problem-solving, communication, collaboration, attention to detail, leadership, project planning & organization

PROJECTS (Linked on my Website & GitHub)

- **Remote Sensing Analysis of Vegetation Burning and Regrowth**

Applied random forest **classification** and NDVI **change detection** using Python Scikit-Learn, QGIS, and ArcGIS Pro to analyze satellite imagery and quantify post-fire vegetation recovery patterns. Designed **map visualizations** for a deliverable written report.

- **Geospatial Analysis of Walkability in Salem, Oregon**

Conducted geospatial analysis of walkability factors, utilizing large spatial datasets to improve pedestrian networks. Performed spatial joins, queries, and weighted raster analysis using ArcGIS Pro. Delivered a report of **actionable city planning recommendations**.

- **Sustainability and Energy Usage Data Analytics**

Developed predictive models analyzing country-level energy and CO2 emissions data. Performed data preprocessing, exploratory data analysis, inference, and optimization of machine learning techniques via k-fold cross validation and hyperparameter tuning.

PROFESSIONAL EXPERIENCE

Data Science Learning Assistant – University of Oregon – Eugene, Oregon September 2024 - ongoing

- Led weekly tutoring sessions, providing personalized support in Python, statistics, and data science fundamentals
- Guided students through labs & homework, fostering problem-solving skills, collaboration, and enhanced understanding

Data Analyst Intern – Helping Irish Hosts – Dublin, Ireland July 2024 - August 2024

- Cleaned and standardized thousands of records of sensitive contact data & guided colleagues with data-cleaning tasks and software, ensuring accurate and consistent data entry
- Streamlined large-scale data imports from Excel and Sheets into HubSpot CRM, accelerating the matching process for over 1,000 host families and Ukrainian refugees
- Led the creation and presentation of monthly dashboards analyzing communications metrics, delivering powerful data visualizations and insights to optimize audience targeting strategies

Market Associate – Helvetia Farm Market – Hillsboro, OR June 2022 - January 2024

- Delegated tasks, trained staff, and ensured accurate data entry while providing customer service in a fast-paced environment.

Mobile App Intern – Phase4 Mobile Inc. – Portland, OR June 2019 - July 2021

- Analyzed revenue trends and organized sound data catalogs using Python scripts across 3 major apps