Yash Katwal

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EDUCATION

University of Washington   Seattle, WA
B.A. in Geography: GIS & Data Science | B.S. in Informatics: Software Development   *Sep 2019 – Jun 2023*

EXPERIENCE

Software Engineer Intern   Jan 2025 – Jun 2025
Apple   *Seattle, WA*
- Developed Python automation scripts and leveraged internal AI APIs to automate log analysis and data processing for Apple Vision Pro.
- Created interactive dashboards (HTML/CSS/JS) to visualize bug trends and system performance, enabling faster debugging and improved app stability.

Software Development Intern – GIS Specialist   Oct 2020 – Jun 2023
University of Washington MELC   *Seattle, WA*
- Deployed an interactive web map with Mapbox GL JS and GeoJSON for public access to historical datasets with WCAG compliance.
- Georeferenced scanned historical maps in QGIS and built a MongoDB GeoJSON layered backend.

Data Science Intern – Spatial Analyst   Jan 2021 – Jun 2022
University of Washington Biology Dept.   *Seattle, WA*
- Analyzed GPS collar data in QGIS and Python to map wild dog behaviors and movement patterns.
- Trained machine learning models (SciKit, TensorFlow, PyTorch) to classify lion roars, automating data cleaning and preprocessing workflows.

Full Stack Developer – GIS Web Tools   Jan 2023 – Mar 2023
Adios COVID & UW iSchool   *Seattle, WA*
- Built a full-stack web app using Next.js and AWS Lambda, integrating Mapbox to display COVID data.
- Created dynamic endpoints and published interactive dashboards to support research use cases.

Cultural Project Manager   Jun 2021 – Jun 2023
South Asian Student Association   *Seattle, WA*
- Led coordination of large-scale community events, managing budgets, teams, timelines, and external partnerships.
- Created marketing campaigns and communication pipelines, ensuring cross-org collaboration and outreach.

IT Help Desk Assistant   Jan 2022 – Jun 2023
UW Academic Technologies   *Seattle, WA*
- Provided Tier 2 support for students and faculty, diagnosing hardware/software issues across lab and personal systems.
- Researched and documented solutions to technical issues with industry standard applications.

PROJECTS & ACTIVITIES

Image Classification and NDVI Analysis   Jan 2023 - Mar 2023
UW Geography   *Seattle, WA*
- Used ArcGIS Pro to classify Landsat 8 imagery and calculate NDVI values for vegetation analysis.
- Created geodatabases and applied supervised/unsupervised classification workflows for disaster impact evaluation.

Web GIS Development Projects   Jan 2023 - Mar 2023
UW Geography   *Seattle, WA*
- Designed and published interactive GIS maps using Mapbox GL JS and GeoJSON datasets.
- Managed collaborative GitHub repositories and structured code/documentation for maintainability.

US Internal Migration Analysis with R + GIS   Jan 2023 - Mar 2023
UW Geography   *Seattle, WA*
- Analyzed and visualized ACS/IRS migration data using R and Leaflet to show regional migration efficiency.
- Performed data cleaning, merging, and statistical summaries to support insights on demographic movement.

TECHNICAL SKILLS

GIS Platforms: ArcGIS Pro, ArcGIS Online, ArcGIS Enterprise, QGIS, Mapbox GL JS, Leaflet

Languages & Scripting: Python (ArcPy, GeoPandas), R, SQL, JavaScript, HTML/CSS

Geospatial Tools & Analysis: NDVI, image classification, GPS/GNSS data integration, raster/vector QA/QC, GeoJSON, REST APIs

Software & Tools: ESRI Suite, AWS Lambda, Git, Docker, MS Office Suite, Adobe Creative Cloud, Visual Studio Code

Field Equipment: GPS data loggers, survey tools, mobile field collection apps (Field Maps, Survey123)