Christopher Tillotson

(703) - 489 - 1936 | christopher.t.tillotson@gmail.com | linkedin.com/in/christillotson | https://github.com/christillotson

Aspiring data scientist and GIS analyst with technical background in machine learning, remote sensing, and statistical modeling. Seeking opportunities to apply technical skills and analytical thinking to real-world challenges.

Relevant Work Experience

Research Assistant (CGA)	Assisting Professor Jennifer Swenson on a project to track wildlife herds using synthetic-aperture radar (SAR) data – pre-processing, script development, filtering.	Jan 2025 - present
Research Assistant (Geolab)	Independently collecting administrative boundary shapefiles for integration into the geoBoundaries dataset during school term. Available at www.geoboundaries.org	Jan 2024 - present
Human Factors Intern (Leidos, Inc.)	Conducted literature reviews, implemented eye-tracking, developed experimental protocols, expanded NLP retrieval-augmented generation pipeline, visualized satellite tracklet data, reviewed and debugged Python code.	May 2023 - present

Education

College of William & Mary — B.S., Data Science (Minor: GIS)
Significant coursework in Mathematics
GPA 3.97
Expected **May 2026**

Relevant Coursework

MATH 352	**Statistical Data Analysis**	Simple and multiple linear regression, nonlinear regression, experimental design, nonparametric statistics, statistical software (**R**).
DATA 301	**Applied Machine Learning**	Topics applied conceptually and in practice (programming), including probability rules, Monte Carlo simulations, reinforcement learning, association rules, regression and regularization, support vector machines, grid search algorithms, neural networks including convolutional for image recognition, natural language processing, and model selection (**Python**).
DATA 302	**Databases**	Creating **SQLite** databases and integration with **Python** for future database adaptation.
DATA 340	**Time Series Analysis**	Univariate time series data analysis, including features of data from the perspective of stochastic processes, regression analysis, classical ARIMA models, GARCH (**R**).
GIS 405	**Geovisualization & Cartography**	Spatial statistics, use of color and typography, strategies around giving and receiving critique. Portfolio: https://arcg.is/1OWOrT
GIS 410	**Remote Sensing**	Sourcing data, corrections, classification, spectral enhancements using indices, hyperspectral analysis, radar and lidar, and change detection. Based on **ENVI**, but also touched on **Google Earth Engine**. Final Project: https://arcg.is/1eCTGu1
GIS 420	**Advanced GIS**	Scripting and automating data management, manipulation, and analysis procedures. Final Project: https://github.com/christillotson/GAGEWestUS_RTK (**ArcGIS Pro, Python**)

Other Experience

GIS Teaching Assistant (CGA)	Reviewed weekly lab materials for the Center for Geospatial Analysis and assisted peers with debugging and spatial problem-solving.	Sep 2024 - May 2025

Other Courses

Spatial Data Science: The New Frontier in Analytics (ESRI MOOC) — Aug 2024
Suitability models, predictive analysis, pattern detection and clustering, object detection with deep learning.

Skills

Languages & Tools	Python, R, SQL, ArcGIS Pro, ArcGIS Online, ENVI, QGIS, Google Earth Engine
Data Analysis	Machine learning, data cleaning, model selection and tuning, time series, visualization
Geographic Information Systems	Remote sensing, SAR, cartography, geovisualization, spatial statistics, georeferencing, digitization, automation and integration with Python
Professional Skills	Literature review, independent and collaborative research, technical communication, peer mentorship, self-directed learning, experimental protocol development