ANDREW M CAMERON

CONTACT

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EDUCATION

VIRGINIA COMMONWEALTH UNIVERSITY

Master of Environmental Studies
GIS Post-Baccalaureate Certificate
2024

MIDDLEBURY COLLEGE

Master of Arts, Spanish
2015

SKILLS

→ ArcGIS Pro & ArcGIS Online
→ R & RStudio
→ Cartographic Visualization
→ Data Wrangling & Management
→ Arcade
→ Suitability Analysis
→ Change Detection
→ Bilingual English/Spanish
→ Geodatabase Design & Management
→ Esri tools
    Survey123 (Connect); Web Maps; Field Maps; Experience Builder; Model Builder; Dashboards

Working Knowledge
→ Python/ArcPy
→ PostgreSQL & PostGIS
→ SQL
→ Remote Sensing/Lidar
→ ArcGIS Enterprise
→ Statistical Analysis

ABOUT ME

With over a decade of professional experience in education, I made a strategic pivot to environmental geospatial technology, leveraging strong communication and problem-solving skills. Bilingual and skilled in GIS, data management, and analysis, I am passionate about applying my technical expertise to projects that support environmental research, promote sustainability and equity, and contribute to impactful climate action.

WORK EXPERIENCE

GEOSPATIAL RESEARCH ANALYST
Virginia Commonwealth University (Jan. 2024 - present)
• Preparation of technical project summaries and metadata
• GIS data sourcing, acquisition, conversion, and integration
• Development of ESRI web applications both to collect field data and to communicate data effectively for stakeholders
• Project lead on model ground-truthing, handling logistics, data collection, post-processing, and the preparation of a research brief
• Processing large volumes of LAS files to generate DEMs and DSMs for land cover analysis
• Utilizing Python and Arcade scripting to automate data tasks and improve web map functionality

ENVIRONMENTAL DATA ANALYST
Independent Consultant (Dec. 2023-present)

• Optimizing R scripts for environmental data processing
• Implementing statistical models for environmental data analysis
• Producing clear, dynamic, publication-ready data visualizations and map layouts with R and ArcGIS Pro
• Preparing comprehensive technical documentation, including data specifications, user requirements, and step-by-step procedures for adapting to new data

GIS ANALYST INTERN
City of Newport News (May 2023 - May 2024)

• Designed and maintained geodatabases in ArcGIS, integrating diverse data sources, and utilizing Python scripting to automate processes such as alphanumeric ID assignment and column renaming to ensure data consistency and alignment with database schema.
• Developed and troubleshot GIS applications, including Field Maps, Survey123, and Experience Builder for interactive web apps
• Conducted complex spatial analyses and mapping as lead analyst for city's gun violence intervention prevention (GVIP) initiative
• Developed a comprehensive R script to streamline the preprocessing of large, complex datasets in support of GVIP

PRESENTATIONS

"OPTIMIZING SITE SELECTION FOR (SUB)URBAN AGRICULTURE"

APA Virginia Conference   Jul 2024

Williamsburg, VA

Co-presenter with Dr. John Jones, discussing how geospatial analysis was applied to balance equity, sustainability, and longevity in Richmond City, VA.

"USING URBAN LAND EVALUATION AND SITE ASSESSMENT TO IDENTIFY IDEAL LOCATIONS FOR URBAN AGRICULTURE"

Miami Valley Section of APA Ohio   Apr 2024

Virtual

Co-presenter with Dr. John Jones. Presentation on urban agriculture and the uLESA model aimed at planning professionals.

"LITTLE PATCH, BIG DIFFERENCE: HOW SMALL GREEN SPACES CAN TAKE ON BIG IMPORTANCE FOR MIGRATING BIRDS IN DEVELOPED AREAS"

Newport News Green Foundation   Apr 2023
"Green Drinks" Series

Newport News, VA

Invited public talk on the importance of small green spaces for migratory birds in urban areas, utilizing NLCD data, eBird data, and two local case studies to make the case.

HONORS & AWARDS

MOST OUTSTANDING GRADUATE STUDENT

Virginia Commonwealth University   May 2024
Center for Environmental Studies

Richmond, VA

Awarded at the completion of my graduate studies in recognition of academic performance, professional development, and contributions to the program.

GIS WEB APP CONTEST - 1ST PLACE

Hampton Roads GIS Day Conference   Nov 2023

Norfolk, VA

Award for best Web App voted on by attendees of the GIS Day conference at Old Dominion University in recognition of our internal Newport News Gun Crime application.

BEST GEOGRAPHIC ANALYSIS

Virginia Association for Mapping and   Apr 2023
Land Information Systems
Conference   Harrisonburg, VA

Issued by Virginia Association for Mapping and Land Information Systems at the VAMLIS 2023 GeoCon conference in recognition of my poster "Using GIS to Identify Habitat for an Endangered Coastal Songbird".

PUBLICATIONS

"MAPPING A GREENER FUTURE: HOW GIS ENHANCES URBAN AGRICULTURE INITIATIVES"

Urban Agriculture Magazine, no. 41   Apr 2024

This article uses Richmond, Virginia as a case study to highlight how GIS technology can enhance urban agriculture initiatives by optimizing site selection and supporting sustainable, equitable project planning.