

# Samuel Arnold

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## SUMMARY

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Detail-oriented data enthusiast and GIS professional with 2 years of experience using a variety of GIS software to visualize spatial data. Proficient in data management and cartography with a passion for helping others and representing environmental issues through spatial science.

## TECHNICAL SKILLS

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**ESRI Suite:** ArcGIS Pro, Online, Dashboards, StoryMaps, Enterprise, Portal

**Geospatial Tools:** Quantum GIS (QGIS), OpenStreetMap, GRASS GIS

**Languages:** Python, LaTeX, MySQL

**Libraries:** Pandas, NumPy, Matplotlib, OpenCV

**Microsoft Suite:** Excel, Access, Word, Sharepoint, PowerPoint, Teams, Outlook

**Additional Software:** Adobe Illustrator, Adobe Photoshop, Adobe Acrobat

## PROFESSIONAL EXPERIENCE

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**GIS Analyst I** Oct 2022 - Present  
Washington College Chestertown, MD

- Compose monthly risk-analysis maps of vehicle thefts and impaired driving using ArcGIS Pro and Adobe Illustrator
- Automate data queries using Arcade and SQL to increase efficiency of data selection and exportation
- Coordinate with Maryland Department of Transportation on upcoming projects, deadlines, and grant funding
- Deploy StoryMaps, Dashboards, and Web Applications into our reports for additional data visualization
- Supervised 15+ student interns by answering questions, providing detailed edits, and tracking current projects

**Next-Gen 911 GIS Analyst** Feb 2022 - Oct 2022  
Inteliquent Boulder, CO

- Identified and corrected data from collected shapefiles to meet professional quality standards using QGIS and Excel
- Doubled data correction efficiency by creating and integrating python scripts into the QGIS workflow
- Worked with local government and law enforcement to collect and update our geodatabase for 911 call routing

**GIS Lab Assistant** Aug 2021 - Dec 2021  
Dickinson College Carlisle, PA

- Developed student training modules for concepts such as "Data Management" and "Cartographic Standards"
- Maintained lab computers by managing ESRI user permissions in ArcGIS Enterprise and updating firmware
- Researched and documented new spatial software that could be taught in the Advanced GIS course curriculum

**Research Assistant** May 2021 - Aug 2021  
National Science Foundation - Research Experience for Undergraduates (REU) Cambridge, MD

- Taught myself how to utilize machine learning and Python to create an automated image segmentation program
- Constructed a working machine learning model therefore eliminating the need for manually segmenting images
- Presented a final research project to stakeholders regarding the outcome of the image segmentation program

## EDUCATION

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**Google Data Analytics Professional Certification** March 2023 - Present

**Dickinson College** Aug 2017 - Dec 2021  
Bachelor of Science in Earth Science Carlisle, PA  
Bachelor of Science in Archaeology  
Minor in Anthropology

## PROJECTS

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**SoundCloud Web Scraper** | Python, Pandas, MySQL, BeautifulSoup Feb 2023

- Designed a script using Python, Selenium, and BeautifulSoup to collect my listening history on Soundcloud
- Extracted, manipulated, and managed HTML text from SoundCloud in a data frame using Pandas
- Cataloged the results of the web scraper in a relational database using MySQL

**Automated Image Masker** | Python, Matplotlib, Numpy, OpenCV May 2021 - Aug 2021

- Implemented OpenCV to create a machine learning model to identify and mask turtle shells from an image
- Collaborated with members of the Smithsonian Data Science Team using Jupyter Notebook to share notes
- Documented workflow with visual aids created using Numpy and Matplotlib