JOHN HARRIS

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Education & Certifications

M.S. Geology (In progress) – Geomorphology emphasis August 2022-Present

University of Maryland, College Park, MD

- Research advisor: Dr. Karen Prestegaard
- Master's thesis topic: *Controls on tributary fluxes of water and sediment to urban streams.*

B.S. Geology January 2013-August 2016

Colorado State University, Fort Collins, CO

- Xi Sigma Pi Natural Resources Honors Society, Member
- Independent research topic: *Characteristics and predictors of organic matter content in floodplain soils of the Front Range.*

Certifications

- Professional Geologist licensed through the National Association of State Boards of Geology. Required to seal geologic reports.
- Federal Aviation Administration Commercial Remote Pilot (Drone) License. Required to pilot drones for commercial purposes.
- 40-Hour Occupational Safety and Health Administration: Hazardous Waste Operations and Emergency Response. Required to perform work at sites with hazardous conditions and engage in cleanup, treatment, storage, or disposal of hazardous substances.
- 38-Hour Army Corps of Engineers Wetland Delineation Training Program. Required to delineate boundaries of protected wetlands for land development.
- Asbestos Hazard Emergency Response Act: Asbestos Building Inspector. Required to conduct asbestos inspections of buildings and structures.
- Florida Stormwater, Erosion, and Sedimentation Control Inspector.

Professional Experience

Staff Geologist September 2016-August 2022

Aptim Environmental & Infrastructure, LLC (APTIM)

1228 Winter Garden Vineland Road, Winter Garden, FL 34787

Full-time (40-70 hours/week)

- Conducted site surveys and assessments and completed environmental remediation projects for the Florida Department of Transportation (FDOT), the Florida Department of Environmental Protection (FDEP), 7-Eleven, DR Horton, and other private sector clients.
- Taught and mentored junior staff on field and office tasks, and was consulted by superiors and colleagues as a subject matter expert on scientific interpretation and field procedures.
- Planned, coordinated, modified, conducted, and oversaw investigations based on knowledge of geologic field.
- Field interpretations and results used to dictate project decisions involving millions of dollars.
- Collaboration with diverse teams of scientists and non-scientists for project planning and execution.

- Field experience included:
    - Management/supervision/oversight of:
        - Groundwater well installation and development
        - Underground petroleum storage tank closure
        - Site development dewatering and turbidity control
        - Contaminated soil transportation and disposal
    - Geologic soil and rock sample logging.
    - Planning and executing Phase II environmental site assessments, site closure investigations, and sampling events.
    - Phase I environmental site assessments.
    - Groundwater, surface water, and soil sampling.
    - Measuring water levels of observation wells to determine groundwater table depth and flow direction.
    - Collecting water quality samples and parameters.
    - Installation, operation, maintenance, servicing, troubleshooting, and repair of remediation treatment systems and equipment used in water investigations.
    - Calibration of meters and analytical equipment.
    - Utilizing GPS equipment and maps to conduct surveys and create site assessment maps.
    - Establishing vertical and horizontal datum using total station and optical laser surveying equipment.
    - Landfill construction quality assurance.

    - Well surveying and abandonment.
    - Asbestos and lead paint inspections.
    - Petroleum spill incident response.
    - Recycling and waste audits.
    - Conducting water sampling and safety oversight from small watercraft.
    - Operating common construction tools and equipment such as: gas generators, water pumps, drills, hammer drills, concrete drills, sledgehammers, chain saws, circular saws, and reciprocating saws.
- Office experience included:
    - Preparation of written reports, including interpretations of surface, subsurface, and groundwater conditions and conclusions concerning environmental assessment and remediation.
    - Phase II environmental site assessment report preparation.
    - Site history investigation reports.
    - FDEP, FDOT, and local government permit application, tracking, and reporting.
    - Environmental Protection Agency Tier 2 and Emergency Planning and Community Right-to-Know Act hazardous materials reporting.
    - Health and Safety Plan and Fiber Optic Contingency Plan preparation.
    - Preparation and organization of environmental licensing permitting data.

Environmental Science Officer March 2019-Present

Army Reserve 400th Military Police Battalion

2118 Annapolis Road, Fort Meade, MD 20755

Part-time (2-4 days/month, 2-3 weeks/year)

- Preventive Medicine program manager for a detention center unit with 700 plus personnel.
- Advise the commander and personnel on the medical threat and preventive medicine.
- Advise the commander and staff on the environmental aspects of detention center design and construction.
- Effectively communicate technical concepts/findings and their significance to the mission in a clear, concise, and logical fashion in briefings to senior officials.
- Conduct drinking water quality monitoring and treatment for the brigade (4000 plus personnel) during field training events.
- Manage and conduct water quality, insect, rodent, hygiene, disease, and industrial hygiene surveys.

Academic Experience

Graduate Research Assistantship August 2022-Present

University of Maryland

8000 Regents Drive, College Park, MD 20740

Part-time (20 hours/week)

- Position and research funded by the National Science Foundation Critical Zone Network – Eastern Seaboard Urban Cluster. Primary Investigator: Dr. Karen Prestegaard.
- Study storage and release of water, solutes, and sediments in urban watersheds.
- Plan and execute complex hydrologic studies.
- Collect, analyze, and apply statistical methods to hydrologic data (quantity, quality, availability, movement, and distribution of water) to understand changes over time and attribute those changes to different causes.
- Collect and process data for computing stream discharge, determining groundwater availability, and calculating sediment in the field.
- Collect and analyze geomorphological data.
- Prepare reports on hydrologic studies and develop hydrologic models to describe complex watershed systems.
- Analyze scientific data and develop graphical displays with technical computing software (MATLAB, ArcGIS, Adobe Illustrator, proprietary geophysical programs).
- Conduct groundwater/surface water interaction studies.
- Conduct surface water quality sampling, soil sampling, and water sample preservation for analysis.
- Utilize GPS equipment and maps.
- Calibrate meters and analytical equipment.
- Install, maintain, and operate stream gaging stations.
- Conduct seismic surveys to characterize the bedrock interface.
- Present and communicate scientific results to a wide audience.
- Participate in research groups for collaborative planning and execution.

Geology Summer Field Camp May 2016-June 2016

Colorado State University

1062 Campus Delivery, Fort Collins, CO 80523

Full-time (40+ hours/week)

- Five-week field course with an emphasis on geologic mapping, structural geology, stratigraphy, and hydrogeology.
- Performed pH, electrical conductivity, and various ion concentration tests on river/spring water upstream and downstream from the Questa Mine; investigated the effects of mine run off and hydrothermal alteration in the area, as well as the effectiveness of mine remediation.
- Created geologic maps and cross sections for sites near Taos, NM and Silverton, CO by field study and aerial photograph; wrote reports evaluating the geologic history of the field sites and surrounding area based on sedimentary packages, metamorphic facies and structural complexities.
- Examined the lateral and vertical relationships of sedimentary deposits in delta and near shore facies.

Geomorphology Research Assistant/Independent Study May 2015-April 2016

Colorado State University

1062 Campus Delivery, Fort Collins, CO 80523

Part-time (20 hours/week from May 2015-July 2015, 5-10 hours/week from July 2015-April 2016)

- Awarded "College Honors" for my research presentation, *Characteristics and predictors of organic matter content in floodplain soils of the Front Range.* Presented my scientific results in a public forum at the Spring 2016 Undergraduate Research Symposium.
- Performed grain size analyses and sieved and categorized over 200 soil samples as an assistant for Dr. Nicholas Sutfin's PhD dissertation.
- Emplaced seismometers, conducted tracer studies, and collected soil samples in Rocky Mountain National Park.
- Assisted Dr. Natalie Kramer Anderson with her PhD dissertation by matching historical aerial photographs of driftwood on the Slave River to current map imagery using ArcGIS.

Introductory Geology Laboratory Instructor/Teaching Assistant August 2014-December 2014

Colorado State University

1062 Campus Delivery, Fort Collins, CO 80523

Part-time (10 hours/week)

- Independently instructed a one-credit Introductory Geology Laboratory course.
- Created and presented weekly lectures with PowerPoint presentations and practical demonstrations.
- Led field trip groups at Lory State Park and locations of interest in Fort Collins.
- Facilitated students' understanding of geologic concepts through class instruction and office hours.
- Graded lab assignments, quizzes, and exams, maintaining academic records in an online database.

Army Officer Cadet August 2012-August 2016

U.S. Army Cadet Command

204 1st Cavalry Regiment Road, Fort Knox, KY 40121

Part-time (10-20 hours/week)

- Commissioned as a Second Lieutenant in the U.S. Army Reserve upon completion of the program.
- Top 1/3rd of the Army ROTC graduating class for displaying outstanding qualities of leadership and high moral character, awarded "Distinguished Military Student."
- Received leadership evaluations of "Excellent" in leadership positions at the platoon (40 cadets) and squad (10 cadets) level.
- Led company as Head Tactical Officer, responsible for the leadership evaluations of all cadets in the program.
- Taught English to foreign military personnel and provided humanitarian assistance in Cape Verde as a member of a Cadet English Language Training Team.

References

Name	Association	Employer	Title	Phone	Email
Dr. Karen Prestegaard	Research advisor	University of Maryland	Professor	301-655-8294	kpresto@umd.edu
Dr. Mong-Han Huang	Research group	University of Maryland	Professor	510-612-7241	mhhuang@umd.edu
William Chadeayne	Former supervisor	APTIM	Program Manager	352-989-6889	wchade8991@aol.com
Kenyon Howard	Former field supervisor	APTIM	Geologist III	407-462-9465	kenyon.howard@aptim.com
Dr. Nicholas Sutfin	Undergraduate research advisor	United States Geological Survey	Hydrologist	208-921-4063	nicksutfin@gmail.com
Dr. Sara Rathburn	Mentor	Colorado State University	Professor	(970) 491-6956	sara.rathburn@colostate.edu