

**ADRIAN F. FERRAR**  
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## **EDUCATION**

***Hunter College: Geography Department***  
Master of Science in Geoinformatics

**Expected Grad. Spring 2018**

***The City College of New York: Earth and Atmospheric Science Department***  
Bachelor of Science in Geology, Cum Laude. Minor in Economics

**Graduated May 2014**

## **RELEVANT COURSEWORK**

- GeoWeb Services
- GeoComputation I
- Quantitative Methods in Geography
- Groundwater Hydrology
- Renewable Energy & Non-market Enterprise
- Urban Applications of GIS
- Advanced GIS
- Remote Sensing of Environment
- Database Modeling
- Applied Energy Policy

## **TECHNICAL SKILLS**

### ***Experienced Software Knowledge***

ArcGIS Desktop: [ArcGIS Pro, ArcMap 10.4, ArcCatalog 10.4, ArcPy], QGIS, Postgresql/PostGIS, RStudio, SPSS, AutoCAD, Microsoft Office [Access, Word, Excel, Powerpoint, Outlook], Windows 7/8/10, Ubuntu

### ***Experienced Mark up, Versioning & Programming Knowledge***

HTML5, CSS3, Javascript, JQuery, Python, NumPy, Pandas, SQL, Leaflet, Google Maps API, Unix Shell, Git/Github, Docker.

## **PROFESSIONAL EXPERIENCE**

### ***College Aide***

**January 2017 – Present**

NYC Department of Transportation  
55 Water Street. Manhattan, NY

I have contributed to maintaining the Department's Geospatial Asset repository through the development of python scripts to automate regularly modifying records in large datasets. I work primarily with File Geodatabases, SDE servers, and DBMS like Postgres/PostGIS. I have also contributed to the creation of a citywide Predictive Street Deterioration Model using R, as well as a funding project which sought to spatialize and categorize historical commitments for all DOT Bridge, Street, and Facility Assets with their respective political boundaries. In addition, I am currently leading my fellow College Aides in the collection of street ownership assets. We are working, in collaboration with the Department of City Planning and the respective City Borough President's Topography Departments, to acquire, digitize, and render all NYC street title information for the 5 boroughs within a centralized web portal maintained by the Borough Offices.

### ***AmeriCorps Environmental Steward***

**May 2016 – October 2016**

New York Restoration Project  
255 Liberty Avenue. Brooklyn, NY

Environmental steward involved in fostering environmental stewardship and community responsibility in Brownsville, Brooklyn. Essential functions include urban community cleaning, restoration, and beautification of open spaces throughout New York City. Participate in and plan outreach events, volunteer field projects, and provide technical support and training to community gardeners.

***Environmental Laboratory Analyst*****August 2015 - December 2015**

Atlas Environmental Lab

255 W. 36th St. New York, NY

Laboratory researcher involved with examination of potential asbestos containing materials (ACMs) through the analysis of bulk and airborne filter samples using stereo, phase-contrast, and polarized-light microscopy.

***Programming Intern*****September 2014 - August 2015**

Telepathy

68 Jay St. Brooklyn, NY

Personal assistant to independent programmer. Aided in development of Android and iOS applications. Primary role was as a debugger. Secondary roles included administrative assistance and online social media management.

**CERTIFICATIONS**

- Penn State University - Graduate certification in Sustainability, Management and Policy
- 40 Hr OSHA Hazardous Waste Operations & Emergency Response (HAZWOPER)
- 8 Hr. OSHA Hazardous Site Worker Annual Refresher
- NIOSH 582 Equivalency Course
- Local Law 87: Energy Audits & Retro-Commissioning (USGBC-NY Online Webinar)
- Local Law 88: Lighting Upgrades & Sub-Metering (USGBC-NY Online Webinar)

**VOLUNTEER WORK*****Lowline Lab Team Ambassador*****January 2016 - Present**

140 Essex St. New York, NY

Welcomed guests, answered questions related to the exhibit and future endeavors, engaged in customer sales and marketing.

**RESEARCH EXPERIENCE*****Undergraduate Research Assistant*****January 2013 – May 2014**

Department of Earth and Atmospheric Sciences, City College of New York

Faculty Advisor - Dr. Karin Block

Designed and conducted experiments studying interaction of virus, bacteria, and clays. Studied changes in clay structure due to interactions with biological materials. Maintained and supervised laboratory protocols and equipment.

**LABORATORY SKILLS**

- Proficient in clay mineral preparation, removal of silica, organics, and oxides and centrifugation for clay size fractionation and cation exchange.
- Proficient in the growth of *Pseudomonas Syringae* bacteria, including dilution, preparation of medium and cultivation in sterile environment
- Proficient in the growth of *Pseudomonas* phage  $\Phi 6$  virus, cultivation, dilution and gradient purification
- Proficient in phase contrast and fluorescence microscopy for characterization of bacteria, clay, and bio-film.
- Capable of operating Phase-Contrast & Polarized-light Microscope, UV-VIS Spectrometer, and Ion Chromatography