#### ADRIAN F. FERRAR

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#### **EDUCATION**

Penn State University: Renewable Energy and Sustainability Systems

**Expected Grad. Fall 2017** 

Master of Professional Studies in Sustainability, Management, and Policy

Hunter College: Geography Department

**Expected Grad. Fall 2017** 

Master of Arts in Geography

The City College of New York: Earth and Atmospheric Science Department. Graduated May 2014
Bachelor of Science in Geology, Cum Laude. Minor in Economics

# RELEVANT COURSEWORK

- Environmental Geochemistry
- Fundamental Atmospheric Science
- Groundwater Hydrology
- Renewable Energy & Non-market Enterprise
- Sustainability Driven Innovation

- Geographic Information Systems
- Biomass Energy Systems
- Database Modeling
- Technologies for Sustainability Systems
- Applied Energy Policy

### **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)

## PROFESSIONAL EXPERIENCE

## 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.

# Sustainability Intern

February 2015 - May 2015

Julia Rosa Floral Event Design 120 W. 28th St. Manhattan, NY

Sustainability intern tasked with researching budget and feasibility of utilizing green product alternatives for the young business. Responsibilities included on-site composting and anaerobic digester/bio-gas generation research and development of monthly compost strategy for organic waste.

#### TECHNICAL SKILLS

**Operating Systems** 

Windows Vista, 7, 8, 10

Ubuntu

### **Software**

ArcGIS Desktop: (ArcGIS Pro, ArcMap 10.4, ArcCatalog, 10.4, ArcPy), QGIS, AutoCAD, Microsoft Office (Word, Excel, Powerpoint, Outlook),

# Programming Knowledge

HTML5, CSS3, Javascript 1.8, JQuery 1.3, Python 2.7, Google Maps API, Bash Unix Shell

## Sustainability

Background knowledge in the construction, constraints, and polcy standards surrounding renewable energy markets. Capacity to perform life cycle assessments and basic energy/material balances associated with technical projects. Proficient at assessing sustainable technologies to determine greatest long-term benefits and identifying environmental, economic, and social metrics associated with technical projects,

#### **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 biofilm.
- Capable of operating Phase-Contrast & Polarized-light Microscope, UV-VIS Spectrometer, and Ion Chromatography

# **ACADEMIC HONORS**

# Summer Study Abroad Scholarship

**June 2013 – July 2013** 

Roehampton University, London, England

Received full scholarship for a six-week academic program focused on current issues in financial services within the context of accounting, economics, and law. Issues included: derivatives, U.S. housing market, the debt market, Barclays Bank involvement with LIBOR scandal, and various approaches toward regulation.