

# Joseph Caramore

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3313 Madison Ave., Apt T312, Boulder, CO 80303

**Objective:** Air quality specialist

**Education:** **M.S. Atmospheric and Oceanic Sciences** (GPA: 3.3/4.0)  
University of Colorado, Boulder, CO December 2011 (expected graduation date)

**B.S. Chemistry and Mathematics** (GPA: 3.35/4.0)  
Muhlenberg College, Allentown, PA May 2008

Relevant Coursework: Analytical/Physical/Organic/Inorganic/Atmospheric Chemistry, Mathematical Modeling, Physics of Clouds and Aerosols, Atmospheric Dynamics, Radiative Transfer and Remote Sensing, Statistics

## Technical Proficiencies:

- MS Office Suite (Excel, Word, Powerpoint, Access)
- Some programming experience in: MatLAB, IDL, NCL, Java, LabVIEW, Mathematica
- Laboratory experience with gas chromatography, mass spectrometry, high performance liquid chromatography, and various techniques in wet chemistry

## Experience:

**Graduate Research Assistant**, Institute for Arctic and Alpine Research, Boulder, CO (April 2009 - December 2011)

- Conducted physically demanding field work and data analysis of snowpack-atmosphere trace gas exchanges with a strong emphasis on **hydrocarbons** and mercury. Improved experiments by initiating new collaborations with the University of Michigan. Gained extensive knowledge of air quality, gas chromatography, snow hydrology, and an expertise in managing multiple projects with tight deadlines.

**Teaching Assistant**, University of Colorado, Boulder, CO (September 2008 – December 2011)

- Evaluated student performance; organized and maintained hundreds of papers. Achieved an expertise in communicating complicated scientific concepts to non-scientists as an occasional lecturer for three large (200+) lecture classes, and as a primary instructor for ten laboratory classes of 20 students on basic climate science.

**Representative of the United Government of Graduate Students** (November 2008 – May 2010)

- Liaison between the department of Atmospheric and Oceanic Science and the graduate student government. Chosen to be the sole student voice for the University of Colorado at Boulder's East Campus Task Force which dealt with the planning and development of resources for the East Campus facilities, and involved negotiations with professors, the housing department, and city representatives.

**Undergraduate Research Assistant**, Georgia Institute of Technology, Atlanta, GA (May 2007 – July 2007)

- Aided a graduate student's research by developing a series of input sequences for a nanoelectrospray ionization source on an ion mobility spectrometer using Hadamard transforms to achieve ground-breaking instrument sensitivity.

**Undergraduate Research Assistant**, Muhlenberg College, Allentown, PA (May 2005 – August 2005)

- Analyzed Airborne Visible / Infrared Imaging Spectrometer (AVIRIS) hyperspectral remote sensing data for the Palmerton, PA area to identify areas contaminated with heavy metals from a previous mining disaster.

## Publications:

- **First Author:** "Snowpack – Atmosphere Gas Exchange of Hydrocarbons at Summit, Greenland", *in progress*
- **First Author:** "Gas Exchange of Hydrocarbons in a Seasonal Snowpack at Niwot Ridge, CO", *in progress*
- **Second Author:** "Digitally-Multiplexed Nanoelectrospray Ionization Atmospheric Pressure Drift Tube Ion Mobility Spectrometry", Mark Kwasnik, Joe Caramore, Facundo M. Fernández, *Anal. Chem.* **2009**, 81, 1587-1594

**Languages:** Partially fluent in **Italian** (8 years of classes and a summer in Rome, Italy), and currently learning **Mandarin**.