Joshua M. Clark CV

mailto: josh.clark@dnr.wa.gov | tel: 360.902.1322 | addr: Wildfire Division, 1111 Washington St SE, Olympia, WA 98501

Education

M.S., environmental science	University of Idaho	2016 –
CERT., fire ecology	University of Idaho	2016 –
B.S., atmospheric science	University of Northern Colorado	2011 – 2015

Experience

teaching assistant	University of Idaho	2016 –
meteorologist, program manager	Washington Department of Natural Resources	2016 –
software engineer	MesoWest, University of Utah	2015 – 2016
software engineer intern	Unidata, National Center for Atmospheric Research	2015
fire meteorologist intern	Bureau of Land Management	2014
cartographer	United States Air Force	2008 – 2014

Awards

Academic

Student of the year, Dept. of Earth and Atmospheric Science, Univ. of Northern Colorado	2015
Forecaster of the year, Dept. of Earth and Atmospheric Science, Univ. of Northern Colorado	2015
Researcher award, College of Natural and Health Sciences, Univ. of Northern Colorado	2015
Best student project, Python programming conference, Univ. of Northern Colorado	2014 – 2015
Student travel grant award, 95th AMS Annual Meeting, American Meteorological Society	2014
Service award, Dept. of Earth and Atmospheric Science, Univ. of Northern Colorado	2014
Boundless opportunity scholarship, Daniels Fund	2014
Captain Mark G. Danielson memorial scholarship, U.S. Department of the Air Force	2014
McNair Scholar, U.S. Department of Education	2013
Daniels Scholar, Daniels Fund	2013
Scholarship for Outstanding Airmen, U.S. Department of the Air Force	2011

Military

Distinguished graduate, Officer Basic Training, U.S. Department of the Air Force	2013
Top gun (overall highest performer), Officer Basic Training, U.S. Department of the Air Force	2013
Scholastic excellence award, American Legion	2013
The Army Achievement medal, U.S. Department of the Army	2011
The Air Force Achievement medal, U.S. Department of the Air Force	2011
Afghanistan Campaign Medal	2011

Community

Eagle scout, Boy Scouts of America	2002

Grants and Contracts Awarded (Total $38,148)

A portable remote automated weather station for wildland firefighting in Washington, Public Safety Foundation, PI ($24,960, 2016)

A visualization laboratory for student-led weather analysis, Univ. of Northern Colorado, PI ($12,788, 2014)

Investigating the Louisville urban heat island, Univ. of Northern Colorado Dept. of Earth and Atmospheric Science research grant PI ($400, 2013)

Conference Presentations

Clark, J.M. 2016. The MesoWest/Synoptic web service: a tool for accessing fire weather data. 5th International Fire Behavior and Fuels Conference, International Association of Wildland Fire. Portland, Oregon, USA.

Clark, J.M. 2016. MesoPy: a simple library for interacting with MesoWest data. Sixth Symposium on Advances in Modeling and Analysis Using Python, 96th Annual Meeting, American Meteorological Society. New Orleans, Louisiana, USA.

Clark, J.M., and C.J. Shellito. 2015. Defining the spatial extent and average intensity of the Louisville urban heat island. 15th Student Conference, 95th Annual Meeting, American Meteorological Society. Phoenix, Arizona, USA.

Clark, J.M., and C.J. Shellito. 2014. Defining the spatial extent and average intensity of the Louisville urban heat island. McNair Scholars Research Conference, University of New Mexico. Albuquerque, New Mexico, USA.

Clark, J.M., and T.J. Mathewson. 2014. A synoptic map classification scheme for Colorado large fire occurrence. Young Scientist Symposium on Atmospheric Research, Colorado State University. Fort Collins, Colorado, USA.

Clark, J.M., and C.J. Shellito. 2014. Defining the spatial extent and average intensity of the Louisville urban heat island. California McNair Symposium, University of California – Berkeley. Berkeley, California, USA.

Talks

Clark, J.M. 2016. 2016 fire season review and seasonal outlook. Washington State Agency and Disaster Liaisons Annual Meeting, Washington Emergency Management Division, Camp Murray, Washington, USA.

Clark, J.M. 2016. 2016 fire season review and seasonal outlook. Wildland Fire Advisory Committee Annual Meeting, Washington Commissioner of Public Lands, Cle Elum, Washington, USA.

Clark, J.M., and J. Young. 2016. Accessing fire weather information: a tutorial on using the MesoWest/Synoptic API web services. 5th International Fire Behavior and Fuels Conference, International Association of Wildland Fire. Portland, Oregon, USA.

Clark, J.M. 2015. Siphon: a collection of python utilities for accessing Unidata data technologies. Unidata Python User's Workshop, University Corporation for Atmospheric Research, Boulder, Colorado, USA.

Clark, J.M. 2015. MesoPy, a python wrapper for the MesoWest API. Unidata Triannual User's Workshop, University Corporation for Atmospheric Research. Boulder, Colorado, USA.

Clark, J.M., and P.J. Foy. 2014. Forecasting considerations for a fire environment. Earth Science Speaker Series, University of Northern Colorado. Greeley, Colorado, USA.

Refereed Publications

Clark, J.M., and C.J. Shellito. 2014. Defining the spatial extent and average intensity of the Louisville urban heat island. University of Northern Colorado Research Journal 4(2): 63 – 71.

Non-Refereed Publications

Clark, J.M., Kohler, G., Siemann, D., Halofsky, J., and D. Donato. 2016. Climate change and mountain pine beetle: implications for Washington forests and wildfire. State of the Science Series Issue 1. Washington Department of Natural Resources, Olympia, Washington, USA *(in preparation).*

Kohler, G., Omdal, D., Ramsey, A., Dozic, A., **Clark, J.M.**, Fischer, M., Hersey, C., Ripley, K., Heath, Z., Nelson, A., and B. Smith. 2017. Forest health highlights in Washington – 2016. Washington State Department of Natural Resources and USDA Forest Service Pacific Northwest Region *(in preparation)*.

Media

"DNR uses new forecasting tool to pinpoint hot spots for wildfires." The Spokesman-Review, Spokane, WA. 30 August 2016 (print).

"Western Washington ready to burn as temperatures soar." KING-TV, Seattle, WA. 19 August 2016 (video).

"Training academy grew roots after South Canyon Fire." Post Independent, Glenwood Springs, CO. 4 June 2014 (print).

Development Activities

MesoWest/SynopticLabs API (v 2.1 – 2.4), a python-based web service for obtaining data from over 40,000 environmental monitoring stations. 300+ users.

MesoPy (v 0.1 – 2.1), a pure python wrapper around the MesoWest API. Over 7,000 downloads.

RMAPS Fire (v 1.0), an ad-hoc iOS application developed for fire managers at the Rocky Mountain Area Coordination Center during the 2014 wildfire season. Written in objective-c.

Service

Thurston County, Washington Veterans Advisory Board 2016 –

American Meteorological Society Board for Operational Government Meteorologists	2017 –
American Meteorological Student Chapter President	2014 – 2015

Certifications

Incident Meteorologist (IMET), Type-2 (trainee)	2016 –
Wildland Firefighter II	2015 –