# Jonah M Duckles

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### Education

* Purdue University, West Lafayette, IN  
   M.S. 2008 - Landscape Ecology
* Purdue University, West Lafayette, IN  
   B.S. 2001 - Physics

### Experience

#### Senior Informatics Analyst, University of Oklahoma; Norman, OK 2010-present

* Built a team of informatics professionals by embedding with and partnering with research faculty to provide enabling cyber-infrastructure for global environmental change research projects.
* Architect and implement open source software/hardware solutions for research orientated BigData workflows.
* Develop and deliver teaching and training material, advancing scientific throughput through appropriate use of software systems and tools.
* Active participant in grant writing to build soft-money funded research-support operation bringing in over $2.9m per year in federal research dollars, covering in excess of $300k per year in salary for the Informatics services team.

#### Senior Analyst, Lanworth; Itasca, IL 2008-2010

* Led quantitative analysis team, using satellite remote sensing, biophysical crop modeling and exploratory data analysis techniques to quantify corn, soy and wheat production in the USA, Brazil, Argentina and Black Sea states.
* Acted as project manager and assisted with business development for major consulting contracts, building the firm to over $5-million in annual revenue.
* The firm is now a wholly owned subsidiary of Thomson Reuters.

#### Graduate Research Assistant, Purdue University; West Lafayette, IN 2005-2008

* Studied impacts of land-use change on ecosystem services, specifically studying land use change dynamics in the Muskegon River Watershed area of Michigan coupled to ecological response models.
* Acted as Linux/Windows system administrator of computational infrastructure in the Human Environment Modeling and Analysis (HEMA) Laboratory.

#### Partner, International Technology Strategy Partners; Lafayette, IN 2002-2007

* Co-founded a niche consultancy that facilitated workshops for shared visioning of technology futures at global high tech organizations.
* Provided consulting and educational services to Fortune 100 companies, federal agencies, DoD and global universities.

#### Strategic Planning and Center Coordinator, Purdue Univerisity; Lafayette, IN 2001-2005

* Internal consultant to support Deans and VPs with their strategic planning and future visioning during a major strategic planning cycle.
* Later became a strategic advisor to the University CIO while operating an academic center for best practices in Technology Roadmapping.

### Skills

* Project Management
* Grant Writing
* Systems and Programing: Python, R, JavaScript, Bash, Linux/Unix, Hadoop, PostgreSQL, Impala, HIVE, Amazon Web Services, git
* GIS/Remote Sensing: PostGIS, ArcGIS, GRASS, Erdas Imagine, ENVI

### Publications

* Contina, Andrea, Eli S. Bridge, Nathaniel E. Seavy, Jonah M. Duckles, and Jeffrey F. Kelly. "Using Geologgers to Investigate Bimodal Isotope Patterns in Painted Buntings (Passerina Ciris)." The Auk 130, no. 2 (April 1, 2013): 265-72. [doi:10.1525/auk.2013.13003](http://dx.doi.org/10.1525/auk.2013.13003).
* Duckles, J.M., and E.J. Coyle. "Purdue's Center for Technology Roadmapping: a Resource for Research and Education in Technology Roadmapping." In Engineering Management Conference, 2002. IEMC '02. 2002 IEEE International, 2:900-904 vol.2, 2002. [doi:10.1109/IEMC.2002.1038558](http://dx.doi.org/10.1109/IEMC.2002.1038558).
* Pijanowski, B. C., D. K. Ray, A. D. Kendall, J. M. Duckles, and D. W. Hyndman. "Using Backcast Land-Use Change and Groundwater Travel-Time Models to Generate Land-Use Legacy Maps for Watershed Management." Ecology and Society 12 (2007): [art25](http://www.ecologyandsociety.org/vol12/iss2/art25/).
* Ray, Deepak K., Jonah M. Duckles, and Bryan C. Pijanowski. "The Impact of Future Land Use Scenarios on Runoff Volumes in the Muskegon River Watershed." Environmental Management 46, no. 3 (September 1, 2010): 351-66. [doi:10.1007/s00267-010-9533-z](http://dx.doi.org/10.1007/s00267-010-9533-z). 10.1007/s00267-010-9533-z

### Grants

* NCIIA E-Teams - PI - "Siren Weather Analysis Application", April 1, 2014 - December 31, 2014. #11343-14
* [EPSCoR Track-I](http://www.nsf.gov/awardsearch/showAward?AWD_ID=1301789) - Senior Personnel - "Adapting Socio-ecological Systems to Increased Climate Variability", June 2013 - May 2018, $24,000,000 NSF:1301789
* [USDA AFRI Grazing CAP](http://cris.nifa.usda.gov/cgi-bin/starfinder/0?path=fastlink1.txt&id=anon&pass=&search=R=57101&format=WEBLINK) - Co-PI, "Vulnerability and resilience of Southern Great Plains beef in an environment of increased climate variability", Feb 2013 - Feb 2018, $9,600,000
* [NSF Innovation Corps](http://www.nsf.gov/awardsearch/showAward?AWD_ID=1246504) - Co-Pi, "FlowWorks - A Modern Infrastructure for Spatiotemporal Data Modeling and Analysis", Aug 2012- Dec 2012, $50,000
* [NSF EPSCoR Track-II](http://www.nsf.gov/awardsearch/showAward?AWD_ID=0919466) - Senior Personnel, "A CyberCommons for Ecological Forecasting", September 2009 - August 2012, $3,000,000
* D. Woods Thomas Memorial International Travel Grant - April 2007, $1,000

### Teaching

* Software Carpentry Bootcamp Instructor - R & Python
  + R – University of Miami 1/14; UMKC 02/14; OU 04/14
  + Python - Iowa State 1/14
* Open Source GIS and Remote Sensing - Fall 2013
* Forest Economics - Purdue University - Fall 2007