

**William Farmer**  
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**EDUCATION** Applied Math Bachelor of Science & Computer Science minor from CU Boulder

**TECHNICAL ABILITIES**

<b>Mathematics</b>	Probability, Statistics, Analysis
<b>OS</b>	Unix and Windows
<b>Languages</b>	Python, SQL, R, Go, Clojure, Scala, Javascript.
<b>Administration</b>	Backup/Recovery, Maintenance, System Administration
<b>Security</b>	Cryptography, Nessus, Wireshark, nMap, TrueCrypt, KeePass, Stenography, Password Management, Network Security.
<b>Data Science</b>	Apache Spark, Numpy/Scipy.
<b>Visualization</b>	D3, Graphviz, NetworkX, Matplotlib.
<b>Misc</b>	L <sup>A</sup> T <sub>E</sub> X, Bash, Regex, HTML, YAML, Full Stack Development.

**EXPERIENCE** **Chief Data Scientist** *March 2016 - Present*  
*Nidhogg Consulting, LLC*  
Co-founded Nidhogg Consulting, a startup security firm as Chief Data Scientist. Responsible for analytics, job acquisition, and project management.

**Dispersive Hydrodynamics Research Assistant** *September 2015 - Present*  
*University of Colorado, Boulder*  
Implemented data quality metrics using machine learning algorithms. Also responsible for much of the lab's data analysis projects. Presented at SIAM 2016.

**Data Science Intern** *May 2016 - August 2016*  
*Khan Academy*  
Helped analyze student learning data and generalized education research on a variety of projects as well as design a generalized exam score prediction model.

**Assistant Data Scientist** *July 2015 - August 2015*  
*Shutterstock, Denver, Colorado*  
Created a Apache Spark application to handle large scale ETL tasks on top of their Hadoop platform, as well as deployed several big data solutions.

**Assistant Data Scientist** *April 2014 - September 2014*  
*SpotXchange, Westminster, Colorado*  
Developed an automatic Tableau Server reporting tool based on the semi-public API. Analyzed time-series data in an effort to identify similarities. Created a probabilistic model to analyze single-threaded schedule optimizations.

**Data Visualization Intern** *May 2013 - August 2013*  
*MITRE, Colorado Springs, Colorado*  
Created network data visualizations based on packet transfer data using common visualization technologies. Implemented encryption section for 2013 CTF.

**Data Management Student Assistant** *Fall 2012 - May 2013*  
*National Snow and Ice Data Center, Boulder, Colorado*  
Large scale ETL involving terabytes of research data. Involved application of optimized Python and bash scripting.

**SIDE  
PROJECTS**

**Enforce** A python > 3.5 dynamic type enforcement tool.  
**Hadoop Inspector** A quality control Hadoop Framework.  
<https://github.com/willzfarmer/HadoopInspector>  
**LaTeX Forum Moderator** [www.reddit.com/r/LaTeX](http://www.reddit.com/r/LaTeX)  
**Twilight** Twitter ranking using large network analytics.  
**MITRE CTF** Global Capture the Flag hosted by MITRE.  
**Redwood** Deletes files that are too old or new.  
**DataGraph** Graphs directories in an elegant bubble tree format.  
**DirPyLint** A tool to analyze directory structures for quality.

Please see my website for more information about each of these and more.

**COMMUNITY  
SERVICE**

**FIRST Robotics Mentor** - Will be assisting the Fairview High School robotics team in January 2015.  
**Manitou Cleanup Crew** - Helped with restoration after 2013 flooding disasters.  
**Technical Support** - Volunteered for Manitou Springs Public Library book sales as well as AuthorFest of the Rockies technical support.  
**Labor Assistance** - Volunteered for Concrete Couch for many public works projects.

**RELEVANT  
CLASSWORK**

Applied Statistics 2  
Big Data  
Fourier Series  
Chaotic Dynamics  
Numerical Analysis  
Numerical Computation  
Object-Oriented Programming and Design  
Databases and Information Systems  
Applied Statistics  
Probability  
Some courses have been omitted.