**Henok Kiflu**

Tampa, FL 33647

### Summary

* Strong statistics, math, physics, computational and programming skills backed by multi-disciplinary education (Geostatistics – MS, Computational Geophysics-PhD, Engineering-MS, Geology-BSc).
* Core courses taken include Biostatistics, Advanced statistics, computational statistics, machine learning using R and Python, Big data analysis (Hadoop, MapReduce and CDH ecosystem), SAS, Stochastic processes, physics, advanced calculus, linear algebra, ArcGIS, Java and C++ programming, SQL, NoSQL
* Experience in handling both structured and unstructured data
* Machine learning using Hadoop and MapReduce to characterize state wide geospatial data

### Education

**Doctor of Philosophy in Computational geophysics** Date of Graduation: Dec. 2016

University of South Florida Grade: 4.0

**Master of Science in Geo- Statistics** Date of Graduation: Aug. 2013

University of South Florida Grade: 4.0

**Master of Science in Engineering Geology** Date of Graduation: Jul. 2010

Addis Ababa University Grade: 3.9

**Bachelor of Science in Geology** Date of Graduation: Jul. 2004

Addis Ababa University

**Work and Research Experience**

**Data Scientist**  Dec. 2011 – Sep. 2017

G3 Group consulting

* Writing optimization codes using **python** to derive rules for deciding **optimal sampling** and survey methods.
* Building tables in **SSMS** and writing **SQL code** to run quarries. Developed a **VBA automation tool** with an updated feature to generate adhoc and monthly **analytical reports** and presented result summary using **Tableau.**
* Experience with **SSMS, SSRS, SSIS.** Providing **Data science** driven solutions based on client’s inquiry. Conducting **Data mining** and **Machine learning** on large data using **python** and **R software**.
* Developing complex multivariate **statistical models** using different weighting methodologies. Conducting trend, risk and uncertainty analysis using **SAS** and **SPSS.**
* Played major role in the research, design and implementation of new geophysical methodology and software application.
* Review recent advances in **Data science methodologies** and adopting new techniques to increase capabilities and facilitate existing workflows.

**Data scientist** Jun. 2011 – Aug. 2011

Geoview Inc.,

* Statistical risk analysis using **logistic regression** in **SAS, GIS and R** for sinkhole hazard prediction
* Writing **python scripts** to extract useful information from **unstructured data** and prepare input data
* **Statistical analysis** of the correlation between geophysical and geotechnical data using **SAS**, conducting **MANOVA and ANOVA hypothesis testing** using data from several sinkholes affected sites in Florida

**Project Team Leader** Nov. 2004 – Jul. 2010

Water Works Design and Supervision enterprise

* Project team leader of a multi-disciplinary task force involved in risk analysis and problem solving of complex geohazard problems in dam foundations, reservoirs, unstable slopes and active fault areas
* Using statistical risk analysis and numerical modeling to design and implement mitigation measures

### Computer Skills

MS SQL 2008, SSRS, SSIS, Linux, Hadoop, MapReduce, SSMS, SSIS, SSRS, Access, R, Python, SQL, SAS, C++, SPSS, VB, Tableau, Perl

### Leadership and Activities

Secretary of Geology Graduate student organization at USF Jun. 2011 – Feb 2013

Karst geological society at USF Jan. 2011 – Jul. 2014

President of Environmental Club at AAU Sep. 2002 – Jul. 2004

### Honors and Awards

GSA best graduate research proposal Award 2015

Golden Key International Honor society 2010 -2012

GBF award for outstanding students 2002 - 2004

Belgian Scholarship for outstanding students 2003 - 2004