Accessible software and tools for Pro Bono OR Volunteers

Tool	Link	Category	Further Details
Apache OFBiz	http://ofbiz.apache.org/	Supply chain management	Provides a suite of enterprise applications that integrate and automate many of the business processes of an enterprise
Apache Zeppelin	https://www.zeppelin.apache.org/	Data visualisation	Notebook for visualisation
ArangoDB	https://www.arangodb.com/why-arangodb/	Graph Database	ArangoDB is designed as a native multi-model database from the first line of code. This enables you to model your data in a very flexible way and use ArangoDB for large number of use cases.
ArcGIS	https://arcgis.com/features/index.html	Geospatial / Mapping software	Geographic information system (GIS) for working with maps and geographic information, creating maps, compiling geographic data and analysing mapped information
Awesome R	https://www.awesome-r.com/	Various: Data manipulation; Database management; Graphical displays; Machine learning; Bayesian	A curated list of awesome R packages and tools
Bizagi	http://www.bizagi.com/en	Simulation	A process modelling tool to design, document and evolve process model
Blender	https://www.blender.org/	3D Modeling and animation	An Open source 3D modelling and animation.
Cassandra	http://cassandra.apache.org/	Database	A free and open-source, distributed, wide column store, NoSQL database management system designed to handle large amounts of data across many commodity servers, providing high availability with no single point of failure
ChartsBin	http://www.chartsbin.com/about/apply	Geospatial / Mapping software	A web-based data visualization tool. No installation required. No coding needed.
CMPL	https://projects.coin-or.org/Cmpl	Optimisation	A mathematical programming language and a system for mathematical programming and optimisation of linear optimisation problems.
CODAP	http://www.codap.concord.org/	Data visualisation	Open source software for dynamic data exploration
D3	https://d3js.org/	Data visualisation	JavaScript library for manipulating documents based on data
Data Wrapper	https://www.datawrapper.de/	Data visualisation	A data visualization platform to create simple, correct and embeddable charts and graphs
DataOrchard	https://www.dataorchard.org.uk/data-maturity-assessment-tool	Data Maturity	A free tool to help you assess how data savvy your organisation is and identify areas for improvement. The assessment is based on the data maturity framework.
DREAM	http://dream-simulation.eu	Simulation	Simulation based application with decision support in real-time for agile manufacturing
Dygraphs	http://dygraphs.com/	Data visualisation	An open source JavaScript charting library
Elements	https://www.elements.cloud/	Process Mapping	Process mapping tool with hierarchy
Exhibit	http://www.simile-widgets.org/exhibit/	Data visualisation	Exhibit lets you easily create web pages with advanced text search and filtering functionalities, with interactive maps, timelines, and other visualizations

Flare	http://www.flare.prefuse.org/	Data visualisation	(See Prefuse below)
Free MS Windows images	https://www.developer.microsoft.com/en-us/microsoft-edge/tools/vms/	Operating System	Microsoft offers free (not open source, though) virtualbox images (Win7 through Win10) that you can deploy to test how their browsers (IE 8 through 11 and Edge) work. Particularly useful if you use Linux or Mac for daily work. These images are fully functional OS with the minor inconvenience of expiring after 90 days. Check the link for a simple workaround for this issue provided by Microsoft.
GDAL	http://www.gdal.org/	Geospatial / Mapping software	An open source translator library for raster and vector geospatial data formats
Gephi	https://gephi.org/	Data visualisation	An open-source network analysis and visualization software package written in Java on the NetBeans platform
GLPK	https://www.gnu.org/software/glpk/	Optimisation	A package intended for solving large-scale linear programming (LP), mixed integer programming (MIP), and other related problems.
GNU Octave	https://www.gnu.org/software/octave/index.html	Programming language	A command line interface for solving linear and nonlinear problems numerically
GRASS	https://www.grass.osgeo.org/	Geospatial / Mapping software	GIS software suite used for geospatial data management and analysis, image processing, graphics and maps production, spatial modeling, and visualization.
Gretl	http://www.gretl.sourceforge.net/	Econometrics / Time-Series Analysis	An open-source statistical package, mainly for econometrics
Insight Maker	https://insightmaker.com/	Simulation	Allow you to start with a conceptual map of your Insight and then convert it into a complete simulation model
iPython/ Jupyter	http://jupyter.org/ https://ipython.org/	Programming environment	The Jupyter Notebook is an open-source web application that allows you to create and share documents that contain live code, equations, visualizations and explanatory text. An alternative for Mathematica and Maple users.
Java	https://www.java.com/en/download/	Programming language	
JavaScript InfoVis	http://philogb.github.io/jit/	Data visualisation	Interactive Data Visualizations for the Web
jORLib	http://www.coin-or.org/projects/jORLib.xml	Optimisation	Java library that provides algorithmic implementations and frameworks for optimization problems
Kibana	https://www.elastic.co/products/kibana	Data visualisation	An open source data visualization plugin for Elasticsearch. It provides visualization capabilities on top of the content indexed on an Elasticsearch cluster. Users can create bar, line and scatter plots, or pie charts and maps on top of large volumes of data
Leaflet	http://leafletjs.com/	Data visualisation	JavaScript library for mobile-friendly interactive maps
LibreOffice Calc	https://help.libreoffice.org/Calc/Welcome_to_the_Calc_Help	Spreadsheet analysis	Free version of Excel
ManPy	http://www.manpy-simulation.org/	Simulation	Python simulation library written on top of SimPy. A part of a larger project called DREAM (see the corresponding entry.)

Mathics	https://mathics.github.io/	Computer Algebra System	A free, general-purpose online computer algebra system featuring Mathematica-compatible syntax and functions. It is backed by highly extensible Python code, relying on SymPy for most mathematical tasks. You can try it online at http://www.mathics.net/
MongoDB	https://docs.mongodb.com/	Database	Stores data in flexible, JSON-like documents, meaning fields can vary from document to document and data structure can be changed over time, maps to the objects in your application code, provides ways to access and analyse data with horizontal scaling, and geographic distribution built in
Neo4J	https://neo4j.com	Graph Database	A highly scalable, native graph database purpose-built to leverage not only data but also its relationships
NetLogo	https://ccl.northwestern.edu/netlogo/	Agent-based simulation	A programmable modeling environment for simulating natural and social phenomena.
Odoo	https://www.odoo.com/	supply chain management	An all-in-one management software that offers a range of business applications that form a complete suite of enterprise management applications targeting companies of all sizes
Open Door Logistics Studio	http://www.opendoorlogistics.com/	routing & scheduling	A standalone open source application for performing (a) analysis of your customer locations, (b) sales territory design and mapping and (c) vehicle fleet routing & scheduling – all using an Excel spreadsheet.
Open Refine	http://openrefine.org/	Data Cleansing	OpenRefine (formerly Google Refine) is a powerful tool for working with messy data: cleaning it; transforming it from one format into another; and extending it with web services and external data.
OpenBoxes	https://openboxes.com/about.html	supply chain management	An open source supply chain management system that has been under development since 2010 and is designed to meet the needs of organizations delivering health care in resource-scarce settings, but has also been used for inventory management in the private sector. The OpenBoxes community is continually optimizing existing features and developing new features to innovatively meet users' needs.
Open Solver	http://opensolver.org/	Optimisation	Open Source linear, integer and non-linear optimizer for Microsoft Excel.
Open-streetmap	http://www.openstreetmap.org/#map=5/51.500/-0.100	Geospatial / Mapping software	Powers map data on thousands of web sites, mobile apps, and hardware devices. All data is open.
Pandas	http://pandas.pydata.org/	Statistical analysis	An open source, BSD-licensed library providing high-performance, easy-to-use data structures and data analysis tools for the Python programming language.
PostGis	http://postgis.net/	Database (spatial)	A spatial extension to PostGres
PostGres	http://www.postgresql.org/download/	Database	Advance database
Prefuse	http://prefuse.org/	Data visualisation	A set of software tools for creating rich interactive data visualizations. The original prefuse toolkit provides a visualization framework for the Java programming language. The prefuse flare toolkit provides visualization and animation tools for ActionScript and the Adobe Flash Player.
PSPP	https://www.gnu.org/software/pspp/	Statistical analysis	Can perform descriptive statistics, T-tests, anova, linear and logistic regression, measures of association, cluster analysis, reliability and factor analysis, non-parametric tests and more. Advanced graphics.
PULP	http://www.coin-or.org/PuLP/	Optimisation	PuLP is an LP modeler written in python. PuLP can generate MPS or LP files and call GLPK, COIN CLP/CBC, CPLEX, and GUROBI to solve linear problems.
Pyomo	http://www.pyomo.org/	Optimisation	Python-based, open-source optimization modeling language
PyPy	http://pypy.org/	Programming language	PyPy is a fast, compliant alternative implementation of the Python language

Python	https://www.python.org/	Programming language	Easy to learn programming language
QGIS	http://www.qgis.org/en/site/	Geospatial / Mapping software	A Free and Open Source Geographic Information System
QuickCode	https://quickcode.io/	Programming language	Python and R data analysis environment
R	https://www.r-project.org/	Statistical analysis	Wide variety of statistical (linear and nonlinear modelling, classical statistical tests, time-series analysis, classification, clustering, …) and graphical techniques, and is highly extensible. Also includes: Text mining, Geospatial analysis, Social network analysis, discrete event simulation
Raw	http://raw.densitydesign.org/	Data visualisation	A vector-based data visualizations
Rstudio	https://www.rstudio.com/	Statistical analysis	RStudio makes R easier to use. It includes a code editor, debugging & visualization tools.
Ruby	http://rubyinstaller.org/	Programming language	
Ruby on Rails	http://rubyonrails.org/	App Builder	
Sage	http://www.sagemath.org/	Computer Algebra System	SageMath is mathematical software with features covering many aspects of mathematics, including algebra, combinatorics, numerical mathematics, number theory, and calculus. Huge blend of open source math-related packages including sympy, numpy, SciPy, matplotlib. A decent replacement for Mathematica and Maple. Try it online at cocalc.com
SQLite	https://www.sqlite.org/	Database	SQL database engine - The code for SQLite is in the public domain and is thus free for use for any purpose, commercial or private.
SimPy	https://simpy.readthedocs.org/en/latest/	Simulation	A discrete-event simulation framework based on standard Python
SymPy	http://sympy.org/	Computer Algebra System	SymPy is a Python library for symbolic computation. It provides computer algebra capabilities either as a standalone application, as a library to other applications, or live on the web as SymPy Live or SymPy Gamma
TileMill	https://tilemill-project.github.io/tilemill/	Geospatial / Mapping software	An open source map design studio
Visualise Free	http://visualizefree.com/index.jsp	Data visualisation	A way to visually explore and present data that standard office charting software cannot handle
Vizable	https://vizable.tableau.com/	Data visualisation	A free iPad app that turns your data into beautiful, interactive graphs.
Watchmaker Framework	http://watchmaker.uncommons.org/	Optimisation	Provides a framework for implementing platform-independent evolutionary/genetic algorithms in Java.
Xmind	https://www.xmind.net/	Mind mapping	The Most Popular Mind Mapping Tool on The Planet
yWorks	https://www.yworks.com/products/yed	Graph/Diagram Drawing	Extensive library that enable you to turn your data into clear diagrams with the help of automatic diagram layout