

Computational Analytics

Tangible Analysis With Data Driven Results.



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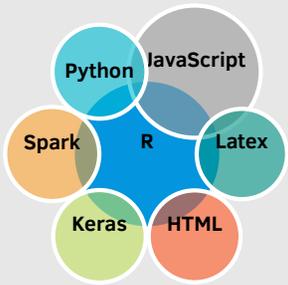


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Languages



Applications

Visualizations

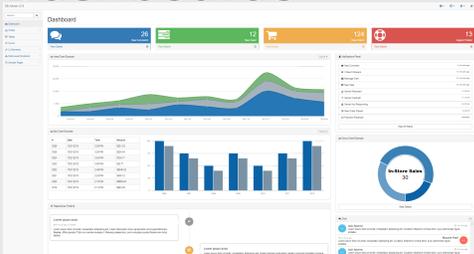
Dashboard and Web Development

Machine Learning

Software Development

Statistical Analysis

Dashboards



General Information

Founded by our passion to produce computational tools and software for real-world application. We have a vested desire to help build the tools you need to visualize and understand your data. Regardless, if your data is scientific or business related we can sort it, categorize it, arrange it count it, group it, plot it and present it. We offer a personal service which will blend our skills into the highest quality tools for your data. Computational Analytics gives you the attention and personal service that you require. The rates are competitive with no hidden fees or surprises and we offer many flat rate packages and services. We realize businesses have budgets which is why we offer various high-quality data services at a reasonable fixed price. Our core services and capabilities are listed below.

- Custom dashboards and web applications using Shiny and Bootstrap.
- General statistical analysis, mathematical, and statistical programming using R.
- Perform technical writing and prepare publisher quality scientific reports, data visualization, plots, and graphs with Latex, Rmarkdown, Plotly, D3, Highcharter, and OpenGL using RGL.
- Machine learning applications using R, Microsoft's ML Server, and SparkR.
- High performance parallel computing applications and algorithm development with SparkR library.
- Time series analysis, signal Processing, noise analysis, and forecasting using ARIMA and time series decomposition.
- Expert data analysis, modeling, and simulations.
- Basic database applications using SQL and SQLite.
- Neural network modeling using R, Keras, and TensorFlow.
- Multivariate regression and nonlinear regression modeling.

Hardware Resources

Computational Analytics offers cloud storage, web site hosting, interactive web dashboards and charts, interactive and parallel computing resources that have up to 44 core and 88 threads available for customer use as scheduled. All cores are on a single board and therefore talk time loss between cores is negligible. Large server banks suffer from network talk time between machines. Parallel programming is performed with MPI, Spark, or the SparkR library. Computing time is leased and scheduled. Our current computing infrastructure offers up to 125 Gig of memory and 1 Tb of swap space. This equates to the ability to perform in-memory computations on data vectors up to 1Tb in size. Interactive web applications can access all computing resources and are interfaced using Shiny and SparkR.

- Cloud data storage, web site hosting, and interactive application hosting.
- Intel® Xeon(R) CPU E5-2696 v4 @ 2.20GHz with parallel computing resources up to 44 cores and 88 threads.
- GeForce GTX 1070/PCIe/SSE2 graphics card.
- Up to 20 Tb of cloud storage.
- Up to 125 Gig of RAM, 1 Tb of solid state swap space.
- Access supported by business class high speed internet.

Demo Applications

- Shiny web application demo.
- HighCharts demo.
- D3 HeatMap demo.