

Newmont Mining Corporation

Technical and Scientific Systems statistical analysis

Client:

Shawn Horton, Newmont Mining Corporation

Background:

Newmont's internal mine planning and geologic modeling software is currently being re-designed to include new geostats functionality. This project requires students to design and build a tool to read three proprietary file formats and display various statistical plots to the user. The student will also write code to interact with 3rd party libraries, including R, JMP and GSLib.

Project Requirements:

- Work with a user interface written in C# and Windows Presentation Foundation (WPF) that will allow users to pick file(s) for analysis and modify various parameters for statistical analysis.
- Create a graphical representation of the above data using probability plots, histograms, P-P, and Q-Q charts.
- Display linear and logarithmic charts for the above chart types where appropriate.
- Be able to interact with third party libraries, using functionality from these libraries and presenting the results within Newmont's applications.

Required Skills:

This project requires knowledge of C# and XAML. Students should be comfortable with C and C++ in order to use legacy code as a reference and guide.

Students should also have a good understanding of probability and statistics for data analysis.

Additional Information:

Students will have access to senior developers who are familiar with C#, C, C++ and the use of WPF and the .NET environment. Additionally, there are resources available to help with statistical analysis problems.