## **Project Initial Description**

As the recent global financial crisis hit the financial systems around the globe, we gradually realize how important the role of risk management plays in our vulnerable system. Risk management is a critical component to prevent this kind of financial crisis from happening in the future. Nowadays companies ranging from big investment banks to small hedge funds are investing big bucks into firm's risk management wings, with the new opportunities emerge.

As we all know, a good risk management team needs the fastest comprehensive data as possible to make valid and solid calculations. Here is where computer engineering comes to play. I propose software which is geared for the financial service industry. It should be a data aggregator which fetches necessary data from the market and generate detailed reports to clients as they need. The project is made up of three parts: data fetcher, report designer and report generator. Data fetcher is essentially an engine that collects all the market data which may potentially used by clients; report designer is a web interface for our client to customize their reports; report generator is an engine that generating all these complicated data into a coherent presentation format (PPT or PDF).

If the design goes living, it will have a bright commercial impact. There are some companies which do report generating business, but almost none of them has a designer component or is geared towards financial industry. Secondly, though some investment banks do have their own report designers and generators but they keep them proprietary. Plus the risk management is a new focus for most of the firms (after 2008 financial crisis) so I conclude the market is relatively new and it is a good time to spend some efforts in this area.