

Research Area: Applications to Industrial Mathematics

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I learned how to solve industrial mathematics problems as a faculty Clinic consultant in 1997. After consulting for two Clinic projects from the Bank of America and the Environmental System Research Institute, I became a faculty Clinic adviser and have been working on Clinic math projects such as “Using Elliptic Curve Cryptography for Secure Communication”, and “Analyzing and Correcting Printer Drift”.

- Each Clinic team I have supervised so far has won the best math Clinic award. The results from the “Using Elliptic Curve Cryptography for Secure Communication” has been patented.
- I have developed research programs based on the original industry problems such as “Solving nonlinear polynomial equations using geometric methods”, “Developing mathematics models in color image technology”. I am currently supervising a senior thesis on “Developing new mathematics models in imaging processing”.
- I have made connections at Boeing for research projects using Geometric Modeling techniques.
- I worked at Hewlett-Packard lab during the summer of 2005. My research results are being considered by HP for patent. The current HP Clinic team is implementing the results that I have obtained. Such new results will lay the fundamental frame for creating a “smart” CMM (Color Manager Model).