

Leadership and Innovation Contributions

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During my long-standing career, I have contributed to numerous projects driven by innovation and leadership. These contributions resulted in improved understanding and modeling of environmental, healthcare and natural systems for non-commercial customers and improved business intelligence for commercial customers. During my time at [RTI International](#), I contributed to the publication of many [peer-reviewed and conference papers](#).

I will focus on those contributions that directly impacted the way business intelligence was created. During my tenure at RTI International, I developed a quantitative framework to aid in decision making for integrated municipal solid waste (MSW) management. The [MSW Decision Support Tool \(MSW DST\)](#) uses a flexible framework to represent many site-specific issues and considerations. It incorporates revenue, cost and environmental objectives. One of the options is to run the [optimization model](#) based on revenue from recyclable materials and waste to energy generation. By selecting the best combination of waste management technology options, municipalities or commercial waste service companies can gain [valuable market insights](#) of these commodities by geographic location, season of the year and other factors.

As a data scientist at [Point Inside](#), I built models to help brick and mortar retail stores (e.g. Lowe's) to increase revenue using strategies ranging from marketing to upsell and cross-sell. Point Inside created an application for customers to use inside brick-and-mortar retail stores. It used signals from beacons to determine the location of customers in a store. Beacons are small, battery-operated wireless devices that transmit Bluetooth signals to nearby smartphones. In the context of retail, beacons reach out to customers that have Bluetooth enabled and the right retail apps downloaded onto their phones. I used these beacons to help our brick-and-mortar customers use proximity marketing to improve shopping experiences and increase sales. There were numerous benefits to adopting beacon technology. We helped our customers to create more tailored experiences for their customers. We saw multiple benefits of using beacons and beacon's data: advertising was done in a tailored and personalized way, deals and recommendations were sent to customers, we tracked shopping habits and preferences to help our retailer customers access insightful consumer data.

At [Continental](#), I led the design and development of a solution for the [Truck Tires Competitor Pricing](#) (USTTP) project. The Continental pricing team is responsible for design, implementation, and reinforcement of pricing strategy in the US market, for all product areas.

The application includes data collected from our salesforce with valuable competitors price information from available price sheets and from conversations with our distributors (our sell-in customers); and with changes in the market (new competitor marketing lines and products, potential addition/deletion of criteria). This application has helped Continental better understand our competitors' patterns and behaviors related to product pricing. Continental uses this tool to optimize [premium pricing](#) to meet our volume targets.

