

Case Study: Maximizing Profits Through Predictive Maintenance in a Top Manufacturing firm

About the Client

Top Technology Manufacturer

Challenges

A top technology manufacturer was producing a wide variety of products that go through several assembly line tests to check for part failures. When a part was flagged for failure, a skilled technician would manually search for the specific area of the part that had failed, find out why, and then repair it. This process was not only time-consuming but lent itself to a greater possibility of human error. In addition, the technicians were expensive and difficult to train. As the products changed, these processes became unsustainable for keeping up with any employee turnover.

Increasing Productivity

Working directly with the technology manufacture, Our Ph.D. data scientists worked to create a predictive maintenance tool. By using a large database of historical part failures, we made an accurate prediction of what went wrong with a specific part, in correspondence to a specific failure. This was then hosted through a web app, allowing the technicians to securely log in and enter minimal details about the test and the failure. We then provided predictions about why the failure occurred, and where it occurred. This allowed the company to remove the dependency on skilled technicians that are tough to find. By being able to properly utilize the time and talent, the technology manufacture was able to maximize their profits.

Impacting Business with TeraCrunch Solutions

Utilizing TeraCrunch's *Predictive Maintenance Tool* manufactures can pinpoint the reason why tests fail on a specific part, in a shorter amount of time. Our web-based application allows specialized employees to work more accurately and quickly. In the operational setup, our machine learning solution is periodically updated and improved by our data scientists. **With hyper-accurate predictions, manufactures can reduce the time spent on manual inspections - reducing human error.**

Key Benefits



Decreases time and expenses involved in root cause analysis



Increases productivity through the use of a customized web app



Reduces human errors

TeraCrunch Value Proposition

Our approach is fast, flexible and collaborative. We work as an extension of your team. No long-term contracts, disruption to your IT infrastructure, or need to invest in expensive talent and software!

1. IDENTIFY

You provide us with your business problems and sample data

2. ASSESS

We provide a free proposal, based off a data quality and viability check

3. SOLVE

We complete a full-scale cloud-based solution in 6-8 weeks