Vikas Jangra

Data Scientist/Technology Consultant

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10 years experienced Professional with a passion to solve real-world business challenges using sensor data analytics. Proficient in leading team of data scientists and data analysts in deploying statistical modelling algorithms/techniques for identifying patterns and extracting valuable insights for the organizational leadership using design and manufacturing domain knowledge. Proficient in translating technical requirements into business specifications for streamlining existing processes and delivering user-centric solutions.

TECHNICAL SKILLS

- **Frameworks** DplyR, ggplot2
- **ML/DL Techniques** Linear Regression, k-means clustering, SVM, Random Forest, Decision Tree, Logistic Regression, Time Series Modelling
- **Tools & Languages** R, JMP, SQL, Tableau, VBA, Python

KEY SKILLS

- Sensor Analytics
- Data analysis Consulting
- Data Visualization & Sanitization
- Business Analysis & Strategy
- Service offerings Creation
- Project Management – Analytics Application Development
- Supervised/Unsupervised Learning
- Data Analysis
- Predictive Analytics & Modeling

EDUCATION

B. E. – Mechanical Engineering | BITS Pilani Goa Campus July '07 – June '11

CERTIFICATIONS

- **PG Diploma in Data Science| IIIT & UpGrad** Jan'18- Jan'19

PROFESSIONAL EXPERIENCE

Data Scientist – Applied Materials (Recently changed to Technology Consultant) Bangalore, IN | Sep '19 – Present

Applied Materials is Semiconductor Equipment Manufacturing organization building tools for Silicon Wafer processing

Data Science and Analysis Service offerings Lead (Sensor Analytics)

- **Leading** the team of data scientists for analytics application development of Tool health specifications using equipment sensor data.
- **Lead** the creation of specialized data analytics service offering on preventive maintenance analysis to monitor the health of tools
- **Providing** consulting service to the customer for troubleshooting the equipment through sensor analytics.
- **Building** an arcing detection model using sensor data to reduce the tool down time.

Mentoring & Stakeholder Management

- Mentored NCGs for sensor analytics skills & ensuring effective execution of all tasks
- Coordinated & communicated with **Field Service team & Customer** for timely execution of the deliverables.

Achievements

- **Team of the Quarter Award** for Remote Tool health monitoring service offering creation
- **Make Possible Award** to considerable GTG reduction through Remote tool health monitoring service offering.

Mechanical Engineer Sr. II – Deposition Product Group | Lam Research Bangalore, IN | Mar '17 – Aug '19

Lam Research is Semiconductor Equipment Manufacturing organization building tools for Silicon Wafer processing

Mechanical Design

- **Concept Design** of Chemical Delivery system of Striker nitride tools
- Conducted detailed design reviews for the critical projects and driving the install and assembly in Lab.

Mentoring & Stakeholder Management

- Mentored NCGs for mechanical design skills & ensuring effective execution of all tasks
- Coordinated & communicated with **US design team and project management team** for timely execution of the projects.

Achievements

- Got **Above and Beyond** award for creating **innovative** solution of Document automation tool during weekends.
- Got **SPOT award** for handling Development release process for full equipment bringing tool to a customer ready equipment

Mechanical Engineer - II | Applied Materials Bangalore, IN | Jul '11 – Feb '17

Applied Materials is Semiconductor Equipment Manufacturing organization building tools for Silicon Wafer processing

Mechanical Design

- **Worked and Designed** components for world's biggest monolithic ALD chamber
- Created **Pneumatic schematics** to finalize the gas delivery mechanism for different configurations of customer.

Project management and cross-functional skills

- Conducted **scoping** of problems & performed **root cause analysis** to for problem report submitted by suppliers
- Coordinated with key clients and initiated measures to understand their requirements for **delivering effective solutions**

KEY PROJECTS

Domain: Semiconductor / Sensor Analytics | Nov '21

- *Objective*: Tool health monitoring service offering during Preventive maintenance
- *Tech Stack*: R, JMP
- *Solution*: Built an Analysis service contract for the customer directly from scratch. We provide the metrics related to tool health like Green to Green time, uptime to the customer through sensor data which helps in improving the life of customer's equipment. Part of service offering is to optimize the steps performed during Preventive maintenance cycles.
- *Key Update:* Started as a pilot program. Now, the offering has evolved and has been deployed at multiple customer sites.

Domain: Chamber to Chamber Matching through Heatmaps | Nov '21

- *Objective*: Compared the newly installed chambers on site with already working golden tools by analyzing all sensors attached to equipment.
- *Tech Stack*: In-house Data fetching and visualization Software, Excel, JMP
- *Solution*: Provided a comprehensive report of chamber matching. Provided mismatched sensors and gave recommendations to resolve issues.
- *Key Update:* Deployed the similar solution at multiple customer sites. It has become a standard format to benchmark any new equipment being installed on site.

Domain: Semiconductor / VLSI | Jun 21

- *Objective*: Arcing detection model
- *Tech Stack*: R, JMP
- *Solution*: Designed an arcing detection model with combination of virtual sensor and regression model.
- *Key Update: Model is evaluated and deployed on the Field service server and can detect arcing 80% of the time.*

EDUCATION

B. E. – Mechanical Engineering | BITS Pilani Goa Campus **Goa | July '07 – June '11**