



Karthik Vengatesan

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SUMMARY

Research oriented Data Engineer/Analyst with experience in Industrial IoT Systems and Big Data Analytics seeking active assignments in varied sector to bring industry credentials and strengths in the areas of data-driven decision making systems.

ROLES & RESPONSIBILITIES

SYSTEM ENGINEER - IIOT, SAINT-GOBAIN INDIA PVT. LTD., INDIA

Jan '19 – Present

Data Engineer/Analyst – Manufacturing 4.0

- Developed Big Data pipeline for analytics application and assisting data analyst, data scientist by provisioning smart datasets.
- Involved in development of data pipeline activities for IT-OT integration that includes system starting from process monitoring, technical production, warehouse management, Sales and Finance.
- Involved in various poc on developing predictive models and optimizing existing python script for data scientist.
- I have primarily gained knowledge in Digital Manufacturing. My technology forte is Talend, CDH, Impala, SCADA, Microstrategy.

SYSTEM ENGINEER, TATA CONSULTANCY SERVICE, INDIA

Oct '17 – Dec '18

Data Analyst – IIoT, Power and Gas Utilities Center of Excellence.

- Developed visualization dashboard, reports, notification alerts and analytical models using OSI PI Soft for monitoring key assets of renewable power plants that resulted in many recommendations, saving millions of dollars in repair costs.
- Have gained experience on end to end solutions on industrial IoT solutions for remote monitoring and diagnostics.
- Have gained basic understanding on various standards that includes IEC 61400, IEC 61724, IEC 61850, DNP3, OPC UA.
- Proposed and implemented paid proof of concept for integrating Tesla Powerwall battery data with OSI PI historian.
- I have primarily gained knowledge in Remote Monitoring of IIoT Systems. My technology forte is OSISoft PI, AWS, TCS IoT.

MASTER THESIS INTERN, IMPERSOL, PORTUGAL

Feb '17 – Aug '17

- Performed research activities on predictive modeling of thermal fracture of glass when solar control film is applied to window.
- I investigated and developed a numerical simulation tool using Microsoft Excel VBA considering French Norm DTU 39, ISO 9050.
- I have primarily gained knowledge in glass and window film industries. My technological forte is FEM, ANSYS, VBA, MATLAB, Window7.4, Optics 6, Python.

INTERNSHIP, BRAIN-E, PORTUGAL

Sep '16 – Dec '16

- A startup environment, where I engaged myself to learn, develop and support them in their upcoming project on Solar PV IoT integration platform.
- Involved in analytics development for an energy engagement platform that integrates smart metering system with PV solar roof top to showcase the way how energy is consumed.
- Have implemented and integrated metering system with AWS IoT platform to process multiples streaming alerts to events.

SYSTEM ENGINEER, TATA CONSULTANCY SERVICE, INDIA

May '14 – Aug '15

BI Developer – Energy Management Solution, TCS

- Performed key role on coordinating system development tasks of TCS Energy Management Solution that includes design, development, integration and formal testing.
- Piloted and deployed our Energy Management solution to one of our key customer in Travel and Tourism Space.
- I have primarily gained knowledge in Energy Monitoring System. My technology forte is MS SQL, Python, Tableau.

ASSISTANT SYSTEM ENGINEER, TATA CONSULTANCY SERVICE, INDIA

Sep '13 – Apr '14

Database Developer/ Administrator-Oracle RightNow, British Telecom

- Configuration, customization and implementation of RightNow/Service Cloud CX as per SOW.
- Migrate and import data from external applications in RightNow.
- Performed extensive ROQL (Read only Query Language) Queries on Custom Objects & used ROQL queries in SOAP/REST services and gained basic knowledge on REST/SOAP API web Services.
- I have primarily gained knowledge in Database Management System. My technology forte is Oracle RightNow, MS SQL, Oracle11g, Oracle Cloud Services.

TRAINEE, TATA CONSULTANCY SERVICE, INDIA

Nov '12 – Aug '13

Database Administrator/ Developer - HR Analytics, TCS

- Completed TCS Initial Learning Program Training in BIPM (Business Intelligence and Performance Management) Stream.
- Involved in administration and development of data pipeline activities for HR dash boarding.
- Gained basic knowledge on RDBMS concepts, ETL Process to Extract, Transform and Load the data into the stage area and data warehouse and present it for Data visualization.

EDUCATION & TRAINING

INSTITUTO SUPERIOR TECNICO, PORTUGAL

2015 – 2017

MS in Renewable Energy Systems, 15/20

Major Disciplines of Study: Energy Management, Renewable Energy, Economic and Energy Market, Hydro Power Systems, Energy Storage, Photovoltaic Solar Energy.

SRI KRISHNA COLLEGE OF TECHNOLOGY, COIMBATORE

2008 – 2012

Bachelors in Mechanical Engineering, 8.4/10

Major Disciplines of Study: Power Plant Engineering, Thermodynamics, Heat and Mass transfer, Fluid Dynamics, Mechatronics, Maintenance Engineering, Total Quality Management.

TRAINING

- In the summer of 2016 I had the honor to participate in the world's largest climate innovation summer school: Climate-KIC's The Journey 2016. We visited different European locations to identify problem, and teamed up to create compelling cleantech business plans offering solutions.
- Underwent In-plant Training in Mechanical Maintenance division of Steel Authority of India Limited (SAIL), India's largest steel producing company.
- Underwent In-plant Training in Engine Assembly Section of Simpson & Co. Ltd., a leading manufacturer of agricultural engine.

CERTIFICATIONS

- Tata Consultancy Service Certified **Energy Management IIoT Engineer**.
- Ignition Automation Certified **Ignition Core SCADA Engineer**.
- E&ICT Academy, IIT Roorkee certified **Big Data Engineer with Hadoop and Spark**.
- E&ICT Academy, IIT Roorkee certified **Machine Learning Engineer** (In Process).
- Bureau of Energy Efficiency certified **Energy Manager** (In Process).
- Certified Microstrategy Data Analyst(In Process)

PASSION & SKILLS

RECOGNITION

- Erasmus Mundus scholarship from European Union to pursue my Master's Degree.
- Community Builder for Climate-KIC Alumni Association, Portugal Chapter.
- Student secretary of Mechanical Engineering Department.
- Student coordinator for Anti Ragging Committee.

VOLUNTEER EXPERIENCE

- Besides academics, professional activities I have been actively involved in working with various non-governmental organizations like Erasmus Student Network Lisboa, Maitree, Myrtle India, ActionAid, Lions Club etc. towards child's education, blood donation camp, awareness for global cause, refugee camp and so on where I would like to spend some quality of time with society through learning and sharing.

LANGUAGES KNOWN

- Tamil(Native), English(Proficient), French(Beginner), Portuguese(Beginner)

SKILLS

- **Data Engineering Tools:** MS-SQL|DBEAVER|Talend BigData|CDH|Impala|Jupyter Notebook|IBM SPSS|Microstrategy
- **IIoT Tools:** Ignition SCADA|OSISoft PI|Matrikon OPC| Loop Edge|AWS-IoT|Arduinio|Raspberry Pi
- **Programming Language:** Java|Python|VBA|SQL
- **Qualities:** Entrepreneurship|Flexible|Optimistic|Team Spirit|Versatile.