



Sonam Gupta

Mechanical Engineer

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Skills

Problem Solving - 1 patent on oil coking risk for additive scavenge tubes.

Customer- Technical support for FlowSimulator Sales to Government and private organizations.

Interpersonal-Lead team of 10 members including contractors to achieve \$1.6 million internal productivity for the business.

Software-Ansys, Hypermesh, UG, GE in-house tools (Siesta, Std.ULIB, FlowSimulator).

Coding- C++, Fortran, Python, TCL/TK, SQL.

Education

IIT-BHU, Varanasi, India
B.tech +M.tech

August 2006-May, 2011

Awards

Engineering Recognition day Award - Simplified Thermal Design System for 100+ legacy models.

Young Engineer Award - Outstanding contribution in early career.

Objective: Seeking a role where I can use my skills and experience to grow along with the organization. I have been continuously upskilling myself during pandemic when as a family we moved to South Korea.

GE Aviation, Bangalore, India

April, 2018 - August, 2020 **Advanced Lead Engineer**

- Sales Revenue of FlowSimulator Licensing- Global revenue of \$250 K, revenue, from India \$100K
- Supported a customer base of 100+ internal Customers and 20+ external customers for technical support for a software(built on Fortran)
- Manager of GE Power Customer base for collecting requirements, planning to address new requirements or escalated issues, testing and getting User feedback and confirmation of resolution.
- Developed new elements/libraries in Fortran for a flow simulation software. The new elements would consist of getting input from the user, doing iterative calculations and then writing out the output.
- Worked with the GUI team of the software to coordinate the solver with the interface and finally tested the completed package.
- Tested all new software executables extensively through all test cases.
- Developed 1D methodology in excel VBA and **Python** to optimize thermal performance of Undercowl compartment in FlowSimulator. Leveraged an existing Simulink model.

April, 2015 - April, 2018 **Lead Engineer**

- Supported a customer base of 100+ users for Hypermesh based GUI platform. Closed 100 + support cases by working closely with customers and understanding the issue at hand.
- Manager of SupportCentral page which is used for logging the support cases, interaction with Users, forums for training and updates.
- Released 4 versions of the TCL/TK GUI package thoroughly tested with all updates and bug fixes.
- Worked with Users to collect the requirements, review the progress and demonstration of the final product.
- Developed a Converter in TCL/TK and C++ to read over 15 text files to create a database in Hypermesh.
- Built **Python** based tool to evaluate risk of Coking in Gas turbines. The real time data of an engine was fetched from the cloud server and the tool would calculate the number of safe cycles before maintenance.

April, 2011 - April, 2015 **Edison Engineer**

- Mesh creation automation using C++ Reader executable compatible with Hypermesh. C++ Reader can read a 3D mesh file in a second that helps users to create mesh in CAD software and import it into Hypermesh for thermal analysis mapping.
- Developed multiple Graphical user interfaces in Hypermesh using TCL/TK for User Input/Output.
- **Edison Engineer**- GE 3-year program to understand the concept of gas turbine design and apply them on real service problems