IONUT IONESCU

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OBJECTIVE

I am looking for a full time opportunity as an Engineeringposition that your company might have available.

WORK EXPERIENCE

Robert Bosch GmbH– Gasoline System — Nürnberg, Germany / Blaj, Romania
Manufacturing Engineer – Gasoline System Division — March 2015 – Now

- Part of the team in charge to realize the safe launch and ramp-up assurance of the project in the lead plant location, byfocusing to achieve the KPI's of the assembly line established by the project team.
- Responsible to define the needed local resources for the project launch and further required improvements, and organize to get them available - Process Engineers, Maintenance Engineers, Quality Engineers, Team Leaders and direct personnel.
- Responsible to present the project status to the project team regularly.
- Responsible to coordinate the product changes of the assembly line before and after SOP: planning update, creates E.C.R. or concessions, and informs the project team about its influence.
- In case of delay, responsible to start the escalation process and to implement a corrective action plan.
- Support for internal audits as well as audits by customers in a teamwork.
- Planning and coordinating the first trial runs on the production line.
- Creating and maintaining the technical documentation in teamwork updated (C.P., W.I., P-FMEA etc.)
- Coordinating the controlled product requirements, and processes change on the production line.
- Tracking and maintaining BPS (Bosch Production System) standard to the new product implemented in the company.

STX Offshore and Specialized Vessels – Ship Builder — Tulcea, Romania
Strategy Engineer – Global — January 2009 – March 2010

- Analyzed ships blueprints to determine the best building solution and divided the project into stages assigned to departments.
- Updated the project status and addressed the client production concerns by conducting weekly meetings with the execution team.
- Generated plausible solutions when the production process was stalling without affecting deadlines.
- Chose the stages when different types of equipment had to be installed on the ship based on the required delivery time.
- Solved the problems created by delays involving costs by optimizing equipment additions in the final stages of building process.
- Part of the team responsible for delivering and testing the vessels before ensuring a safe arrival at the client's shipyard.
- Generate test and certification documentation (e.g. test troubleshooting and resolution of issues, final test reports, etc.).
- Supervised the work process method for units using Tribon and Foran.
- Planned assembling of parts and shifting of blocks before they were moved into the ship.
- Created plans, drawings for plate nesting, alteration sheets, and technical solutions and cut out plans for equipment mounting.

Damen Shipyards – Ship Builder of Commercial and Military Vessels — Galati, Romania
Welding and Assembling Engineer — July 2007 – December 2008

- In charged to coordinate and to integrate all technical aspects (specification, trade-off studies, design, development, validation, performance analysis, qualification, troubleshooting, certification, reports, etc.), issued by of one or more of the following departments: Projecting, Classifying, Cutting, Assembling, Welding and Painting.
- Attended weekly meetings with the design architects, welding department, ship clients, and third party classification firms TIC (Test, Inspection and Certification) to understand the function of the ship, welding parameters, and the section build order.
- Instructed and authorized the shipyard welders to comply with the requirements issued by the classification companies (to know how to use the new materials in the welding process, and how to select software for different welding procedures).
- Monitored welding quality control, responsible for devising strategies to prevent and correct non-conforming welding joints.
- Provided engineering and technical support to In-Service vessels as well as Production activities and new program development by coordinate investigation and corrective action of specific in-service problems involving various systems and component.
- Supervised theline production to avoid any nonconformance with the third-party classification companies (DNV, BV. etc.).
- Keep evidence of risk analysis to each project for critical material due to lead times, monitoring the delivery parts situation and initiate necessary escalation steps if required.

EDUCATION

Embry-Riddle Aeronautical University — Daytona Beach, FL
Master in Aerospace Engineering — May 2014
Area of Concentration: Aerodynamics and Propulsion — CGPA: 3.33/4.0

Lower Danube University — Galati, Romania
Bachelor of Science in Mechanical Engineering — June 2007
Specialization: Welding Equipment and Assembly Technology

RESEARCH EXPERIENCE

Institute of Aerospace Technology, **German Aerospace Center** Bremen, Germany
Intern in a two-stage N2O Hybrid Rocket Project May 2013-August 2013

- Optimized an existing model of an injection system for a hybrid rocket engine. As a summary, the geometry was created using Inventor and Catia, for the meshing part was used ANSYS ICEM and the active part and the domain was analyzed using ANSYS CFX. After the computational modeling was done the parts was sent to a company to be manufactured, and at the end of the practical testing session was obtained a 35 % improvement of the combustion burning process compared with the initial tests.

Embry-Riddle Aeronautical University Daytona Beach, FL
Graduate Research Assistant, Non-Linear Wave Laboratory February 2012 –December 2012

- Team leader of 5 students group to optimize the original prototype of disperser of the GFS Corp. our client main condition were: *"perform theoretical and experimental research, to draw conclusions and to design prototypes related to the process of mixing of the flow of two prescribed fluids in a tubular disperser/diffuser device, in order to improve the mixing quality of air-natural gas in the intake pipe of large Diesel engines."* The initial model was created in Solidworks and the flow simulation was conducted in COMSOL (similar software as ANSYS CFX for CFD analysis).
- Another project who involves Catia, Ansys Structural Analysis and hands on experience developed in Non Linear Wave Laboratory was flow visualization around an airfoil. The goal of this project was to increase the overall functionality of Embry Riddle Mathematics Department's Nonlinear Waves Laboratory to include a functional hydrodynamic tunnel so that aerodynamic research into automotive and small aircrafts can occur.

Lower Danube University May 2004 – June 2007

- *Underwater welding process* – Participated in the development of the theoretical approach for welding underwater pipelines and vessels in a salt water environment. Theoretical research applied in DAMEN Shipyards Romania dry dock area using automated welding robots.

Embry-Riddle Aeronautical University Daytona Beach, FL
Grader/Tutor - Advanced Mathematics in the Matrix Lab February 2012 – May 2014

PROJECT EXPERIENCE

Embry-Riddle Aeronautical University

- *2-D Multiphase Turbulent Flow* – Simulated the cruise condition for a mixture of gases and solid particles flowing (volcanic ash cloud) around turbine bladesusing FLUENTto find amatch between software results and a physical solution obtainedby applying the RANS equations.
- *Computational Heat Transfer*– Performed different simulationsusing ANSYS (Steady State/Transient Thermal, CFX and Multiphysics) to find the heat distribution when a heating sourceit's placed in variables scenarios.
- *Evaluation of airfoil aerodynamic performances:* worked with one teammate on a CFD project, regarding the aerodynamic evaluation of a 6-digit NACA airfoil exposed to laminar and turbulent flows using different types of mesh.
- *Constant volume combustion problem:* found the adiabatic flame temperature of a mixture of propane and methane in air, including 12 species and 5 elements, by using a MATLAB code implementing pivoting strategies.
- *Design and Analysis of Turbine Blade Vanes made bySIC/SIC Matrix* – Presented a report describing the actual market stage, design, production process, and the advantages of this casting structure for future implementation in aeronautic components.
- *Boundary Value Problems: Convection-Diffusion* – Found the mathematical solutions for a Convection-Diffusion problem applying Navier–Stokes Equations having nonlinear terms with large Reynolds Numbers to understand the motion of fluids, gases and liquids.
- *Structural Design Optimization of Screw Car Jack* – The initialstructural analysis was done in ANSYS Static Structural or Nastran,and the final design was optimized in HEEDS. Our main goals were to reduce the stress concentrations without affecting the manufacturing process, increase the lift capability from 2.5 to 5 tons, and analyze the cost process.
- *Compressor and Turbine Acoustic Noise* – Found the numerical approach for noise cancelation using CFD - LES Simulations. Comparing the acoustic data analysis and acoustic tool validation with previous practical measurements, and a new design for blades was elaborated.

SKILLS

Citizenship :	➢ Romanian
Languages :	➢ Romanian mother tongue, fluent in English, German beginner
Computer & Software :	➢ Ansys (Fluent, CFD, CFX, Heat Transfer and Static Structural), AutoCAD, Foran, Catia, Nastran, Matlab, HEEDS