SRI RAMESWAR PRAMOD KASTURI, E.I.T.

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Summary

- ➢ 5 years of corporate work experience in Cognizant Technology Solutions, Hendrickson International and Cyient.
- ➢ 4 years work experience in design, verification, validation (CAE durability, NVH), testing and model correlation.
- ➢ Master's degree from UF with specialization in Solid Mechanics, Design and Manufacturing.
- ➢ Proficient in GD&T, DFM&A, DFMEA, DOE, DVP&R, DFSS, SPC. Cleared FE exam, SolidWorks – CSWA.

Education

Master of Science in Mechanical Engineering   GPA **3.53/4.0,** *May 2015*

University of Florida, Gainesville, Florida

Bachelor of Technology in Mechanical Engineering   GPA **3.70/4.0,** *May 2012*

Jawaharlal Nehru Technological University, Hyderabad, Andhra Pradesh, India

Professional Training: Weibull Log Normal Analysis Workshop (SAE), Applications of GD&T ASME Y14.5-2009 (SAE), Heavy Truck Vehicle Dynamics training, Quality Assurance training, ANSYS APDL training, Project Management Training by Kent State University at Stark (2.8 Continuing Education Unit (CEUs)).

Skills: Creo, SolidWorks, ANSYS Spaceclaim, Teamcenter, ANSYS APDL & Workbench, Fe-Safe 6.5 Verity, PW-Life, ABAQUS, Matlab, Mathcad, nCode GlyphWorks, Microsoft Office.

Publication: "Sensitivity-Based Reliability Analysis of MEMS Acceleration Switch" Prashank Kansal, Pramod Kasturi, Nam H. Kim & Seung-gyo Jang, Modern Applied Science Journal Vol. 11, No. 10, pp. 123-136, 2017 presented at ACSMO 2016.

Professional Experience

- • **Business Analyst, Vassar Labs IT Solutions Pvt Ltd, Hyderabad, India**   *Dec 2020 – Present*
  - ➢ Working on building decision support system (DSS) dashboards for executive and field level monitoring system for a hydraulic fracturing company (US client: Mid Central Energy).
  - ➢ Provide condition-based monitoring of the various Drilling Services and Completion Services.
  - ➢ Use various AI/ML techniques for Prognostics and Health Management (PHM) in order to assess the structural health of the hydraulic fracturing equipment.
- • **Senior Design Engineer, Cyient Pratt & Whitney Center of Excellence, Hyderabad, India**   *Apr 2019 – May 2020*
  - ➢ Verified (hand calculations) and validated (analytical models) models of Pratt & Whitney aeroengines for Airbus A320, Embraer, BA and other aircrafts using Hypermesh, PW-Life, ANSYS APDL and Workbench.
  - ➢ Performed stiffness, damage evaluation, LCF/HCF analyses to check the life, Margin of Safety (MoS) to ensure the structural integrity of the aeroengine structures (brackets, ducts, manifolds, etc) as suggested by P&W Manual of Externals Design (MED) and Federal Aviation Administration (FAA).
  - ➢ Analyzed FH02, CP09 and ATA 24 heat shield brackets by evaluating the NTE (not to exceed) loads on the various components of the structure (Installs, joints, ducts and brackets). Determined the axial and shear loads in LCF, HCF, ultimate and limit cases.
  - ➢ Performed FE checks (free-free modal analysis, inertia, rigid body, thermal check, unit checks) on the PW1100G isolation tank, scavenge pump and other components. Post processed analysis results and documented SASS presentations/SAM reports.
  - ➢ Worked on various Engineering Quality Non-Conformance (QNs) issues in Hot Section Engineering (Diffuser Case and Mid Turbine Frame) components. Non-Conformance is related to weld repair, blend and reduced wall thickness.

- **Validation Engineer, Hendrickson Trailer Suspension Systems, Canton, OH, USA**   *Dec 2015 – Oct 2018*

  Global group
  - ➢ Established new modeling techniques for complex weld geometries using **Creo** and **Ansys Spaceclaim**.
  - ➢ Performed suspension Vertical Beaming, Fore/Aft, S-Cam and Brake Chamber Bracket fatigue test (low cycle fatigue problem) on various revisions to benchmark with competitor's model.
  - ➢ Analyzed parent metal & weld fatigue on new large diameter axle (LDA) mechanical spring suspension using **Ansys APDL** & **Fe-Safe**. Effectively correlated the weld fatigue failure locations between FEA and physical testing.

  Wheel End and Brake
  - ➢ Analyzed axle to spindle friction weld geometries to understand influence of stress concentrations imposed from brake spider and spindle mismatch.
  - ➢ Analyzed the crack growth using Linear elastic Fracture Mechanics (LEFM) approach on the axle spindle friction weld model. Estimated remaining safe life of a structure that contains a crack.
  - ➢ Correlated the simulation and the test values to understand the difference in parameters.

  On Highway group
  - ➢ Validated versions of ZMD piston at different boundary conditions & internal pressure using **ANSYS Spaceclaim** and **Workbench**. Achieved significant improvement in technical capacity and cost reduction.
  - ➢ Impact test was performed on bumpers procured from three different suppliers (Akulon, Schulamid and Zytel).
  - ➢ Variation in temperature, humidity and load bearing capacity at different angles on the bumpers was understood.

  Vocational group
  - ➢ Improved HT Wingless UBO Frame Bracket by proposing a new vent hole geometry to aid the galvanizing process.
  - ➢ Performed non-linear analysis on frame brackets to correlate failure modes obtained from field data.

  Model Correlation Team
  - ➢ Analyzed the variation in life cycles of AANT Sideload model by changing the boundary conditions.
  - ➢ Compared crack size predictions from FEA and test logs in various hub models to understand strain life fatigue data.
  - ➢ Performed digital image correlation (DIC) on various (sprayed) components using GOM ARAMIS software and IR cameras to check the mechanical and thermal deformations.
  - ➢ Summarized material certificates from different suppliers of steel to check whether the ultimate strength, tensile strength and % elongation of different grades of steel rods and sheets are in compliance with the standard mentioned in the ASTM specification.

    Safety Training
  - ➢ Participated in OSHA VPP certified safety training matrix assignments qualified to work in [H] laboratory environment. Active member of emergency evacuation team.

- **Graduate Research - Sensitivity-based reliability analysis of MEMS acceleration switch**   *Dec 2014 – May 2015*

  - ➢ Validated the design to quantify mechanical properties on lateral type acceleration switch in **ABAQUS**.
  - ➢ Analyzed contact modeling of electrodes using implicit dynamics in **ABAQUS** and validated with **MATLAB.**
  - ➢ This work was published in Modern Applied Science Journal Vol. 11, No. 10, pp. 123-136, 2017 and was presented at ACSMO 2016 conference at Japan.

- **Engineer Trainee at Cognizant Technology Solutions Private Limited Hyderabad**   *Aug 2012-Aug 2013*

  - ➢ Provided the Information Technology Infrastructure Services (ITIS) to the Union Bank of Switzerland (UBS) using UNIX, PERL, IBM Tivoli, ServiceNow to ensure the Service Level Agreements (SLAs) in accordance to the financial service protocols. Performed Unit and regression testing on the newly developed scripts or UI.
  - ➢ Coordinated with onshore/offshore L1 and L2 team to implement the User Acceptance Testing (UAT) in SDLC (Software Development Lifecycle).

ACHIEVEMENTS & LEADERSHIP

- Engineer in Training (Cleared FE) – Florida Board of PE – NCEES ID – 15-324-46
- Certified SolidWorks Associate (License: C-JSR4HWP5Q7) & CAD Using Pro/Engineer (License: 70574).