

# Sreten Kalinovic, P.Eng.

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## PROFILE

A motivated and dedicated Professional Mechanical Engineer (P.Eng) with 5+ years of experience in the automotive field, along with a proven successful track-record of implementing kinematic / finite element / fatigue analysis in order to determine root causes to various structural and mechanical based failures.

## EDUCATION

**Bachelor of Engineering, Mechanical** (May 2014)  
Ryerson University, Toronto, Ontario  
CGPA 3.93

## SUMMARY OF SKILLS

<b>Project Management</b>	Considerable experience managing large (\$1M+) projects from inception to closure. Great at utilizing schedules through MS Project to meet important deadlines and milestones. Strong ability to manage resources and manpower. Understands the significance of cost, budgeting, as well as tracking spending plan vs. actual.
<b>Computer Software (MS Office, CATIA SolidWorks, AutoCAD, etc.)</b>	Strong background in Microsoft Office (PowerPoint, Excel, VBA, Word, etc.); constantly used for various day-to-day activities and projects. Proficient in SolidWorks / CATIA (Part, Assembly, Finite Element Analysis, Kinematics, NC Machining, Surface Modeling, 2D Drawing and Sketching); used for countless designs, failure analysis, simulations, and drawings. Great knowhow of AutoCAD; occasional usage for creating and viewing of electrical, pneumatic, and hydraulic drawings / schematics. Experience with ANSYS for structural analysis. Capable of learning any new computer software quickly to meet business needs.
<b>Oral, Written, and Verbal Communication</b>	Excellent ability to communicate effectively to fellow colleagues and contractors. Emphasizes important deadlines, urgent tasks, and consistently seeks input from all stakeholders (including voice of the floor). Demonstrates exceptional presentation skills; shown through successful project approvals (by both Management and Chief Operating Committee). Capable of preparing project proposals and technical engineering reports in a professional manner and to non-technical audiences.
<b>Teamwork and Self-Management</b>	Great ability to work independently and as a team player; shown through countless of successful project closures. Sets goals and makes every effort to meet and exceed them. Exhibits strong liaising traits. Strives for self-development as well as provides mentorship for young engineers and interns.
<b>Failure Analyzing Abilities</b>	Lengthy track-record of determining various mechanical and structural failure causes through the use of CATIA / SolidWorks software in conjunction with hand calculations. Uses finite element analysis and fatigue life calculations to theoretically determine how a structure could fail. Understands how to interpret the stresses & deflection of load-bearing 3D models in order to determine if failure is feasible. Capable of creating kinematic simulations through various software to study motion and aid in failure analysis as well as provide reporting material for presentations to non-technical audiences. Taken numerous CATIA Structural Failure Analysis courses as well as an Advanced Strain Gauge workshop.
<b>Automotive and Vehicular Knowledge</b>	Strong understanding regarding the structural integrity of vehicle frames and stamped parts for the Honda Civic & CRV. Knows the auto-industry regulated specifications with respect to vehicle part material, thickness, contour, stress relief, crumple-zone, side impact bar position, etc. Knowhow to look up vehicle log data through LET (Line End Tester) on-board diagnostics to obtain just about any information that the vehicles stores (vehicle speeds, position, airbag activation, radar warning, etc.) Competent in using VIN data server lookup to determine vehicle specifications after final assembly and inspection to identify status of the vehicle once shipped (e.g. headlight aim, wheel alignment, multi-drive testing, brake force, bolt torque, spoke angle, safety functions, etc.). Some experience understanding vehicle crash testing at Honda Research North America headquarters in Ohio. Strong desire to practice applying this knowhow to vehicular accident reconstruction.
<b>Professional Engineers Ontario Designation</b>	Registered and qualified under PEO as Professional Engineer in good standing since December 17 <sup>th</sup> , 2018. P.Eng stamp obtained.
<b>Rights, Codes, and Regulations</b>	Strongly familiar with the Ontario Human Rights Code, Accessibility for Ontarians with Disabilities Act, Electrical Safety Authority, Occupational Health and Safety Act, Canadian Standards Association, Ontario Building Code, Fire Code, and Pre-start Health and Safety Report commissioning.

## PROFESSIONAL EXPERIENCE

### Mechanical Engineer, Honda of Canada Mfg., Alliston,

May 2014 – Present

- Be the go-to specialist for any responsibilities or duties pertaining to complex failure analysis in the department
- Provide design and stress analysis expertise for vehicles, heavy machinery, mechanical systems, civil steel beam structures, etc.
- Offer engineering advice and solutions in regards to a wide degree of failure and fatigue root cause analysis for under-engineered structures and mechanical components in various departments; performing finite element & fatigue life analysis, and determining suitable countermeasures for failed mechanical & structural designs while meeting Building Code and OHSA regulations
- Manage large projects and assignments from the concept phase (E-Plan) to the closing phase (E-3)
- Provide mentorship and drawing/design review for interns and young engineers for various mechanical concepts and designs
- Regularly obtain vehicle log data for the purposes of studying headlight aim, wheel alignment, multi-drive testing, etc.

### Relevant Projects:

- 1) **Lead for Honda CRV Warranty Claim Investigation**, Vehicle Quality Department, Honda Canada Mfg., Jan 2019 – Present
  - Tasked to determine root cause for severe premature wear on rear left tire that could have resulted in an accident
  - Ultimately studying the vehicle data log and manufacturing data server to determine how vehicle was driven vs. manufactured
- 2) **Structural Lead of Building Facility Deck Reinforcement**, Vehicle Quality Department, Honda Canada Mfg., Oct 2018 – Present
  - Responsible for re-designing and implementing structural reinforcement to current under-engineered pit steel decking in order to meet the Building Code minimum load specification of 4.8 kN/m<sup>2</sup> for supporting a live deck load of steady vehicle traffic
  - Liaising with consulting Civil Engineers, building examiners, facility department associates, and fire inspectors to ensure Building (adequate deck load rating) and Fire (sprinkler pit routing) codes and regulations are met
- 3) **Failure Cause Analysis Lead of Stamping Press**, Stamping Department, Honda Canada Mfg., Jun 2017 – Apr 2018
  - Responsible for determining cause of a crucial stamping press structure that suffered imminent structural failure
  - Moreover, responsible for coming up with a solution to ensure longevity and production life of the manufacturing equipment
  - Used strain gauge data monitoring to calculate fluctuating stresses and determine fatigue life of the equipment structure
  - Modeled the structure to determine peak stress areas and high deflection points for theoretical comparisons
  - Deployed corrective, preventative, and predictive maintenance measures based off of sound engineering analysis
    - Made decisions and instructed maintenance personnel to replace certain components, strengthen materials, and adjust vital clearances in order to ensure reliability of the equipment
  - Ultimately, determined the root cause for the imminent structural failure and proposed structural improvement in regards to the overall press structure design and applied effective condition trend monitoring for both strain and vibration
- 4) **Structural Lead of Sheet Loader Replacement**, Stamping Department, Honda Canada Mfg., Dec 2015 – Mar 2018
  - Responsible for the design & implementation of a stamping press sheet loader support structure encasing a \$1M equipment
  - Evaluated and modeled existing foundation and proposed new modified structural concept design for implementation
  - Completed all structural design work, modeling, finite element analysis, fatigue life calculations, and fabrication shop drawings
  - Assessed and analyzed newly proposed foundation through sound engineering and with the guidance of a consulting Civil P.Eng
  - Managed and worked with vendors for the manufacturing and assembly of the designed structural components
  - Created and archived all final drawings with P.Eng stamps in accordance to PHSR, Building Code, and OHSA regulations

### Major Investment Projects:

- 1) **Blanking Line Run-out C/V & Slitter/Shear Replacement - Investment: \$1.1 Million**, Stamping Department, Honda Canada Mfg., Alliston, Mar 2017 – May 2018
  - Project lead for the replacement of a Blanking Line run-out conveyor and tail-out shredder for the purpose of equipment innovation
  - Responsible for the full E-flow process, project schedule tracking, design review, buy-off, PHSR documents creation
  - Responsible for all structural and mechanical design work, modeling, and finite element analysis
  - Showed tremendous cost-down efforts by closing out at 18% under original project budget
    - Cost-down money was used towards other critical projects that were over budget