Daniel Ferreira

Mechanical Engineer
Grand Rapids, MI · daniel.ferreira@example.com · (616) 555-0148 · LinkedIn · Portfolio

SUMMARY

Mechanical engineer with 5 years of experience in consumer appliances and industrial pumps, working in SolidWorks, FEA and GD&T. Redesigned a dishwasher pump housing that cut warranty returns by 18%, and led tolerance stack analysis on an assembly with 40 mating parts. Comfortable moving between CAD, the test lab and the production floor.

EXPERIENCE

Mechanical Engineer — Hallworth Appliance Co.

Grand Rapids, MI · Feb 2023 – Present

- Redesigned a dishwasher pump housing in SolidWorks after field failures, using FEA to confirm the new wall thickness held 1.5x the rated pressure; warranty returns dropped 18%.
- Ran GD&T tolerance stack analysis on a 40-part door assembly, tightening 6 critical dimensions and cutting rattle complaints by 30%.
- Built and ran a 6-week vibration test rig for a new motor mount, using the data to select a bushing material that cut noise by 4 dB.
- Worked with 2 suppliers and the purchasing team to re-source an injection-molded bracket, reducing part cost by $1.20 at 200,000 units a year without a spec change.

Mechanical Design Engineer — Kestrel Pump Systems

Holland, MI · Jul 2021 – Jan 2023

- Designed impeller and volute geometry for a 2 HP centrifugal pump line in SolidWorks, meeting a flow target of 85 GPM confirmed by bench test.
- Ran thermal FEA on a motor housing redesign, cutting peak operating temperature by 12°C and removing an external heat sink from the bill of materials.
- Created and maintained 150 production drawings with GD&T callouts, reviewed with machinists to cut first-pass scrap on a new line by 9%.

SKILLS

CAD: SolidWorks, AutoCAD, basic Creo

Analysis: FEA (SolidWorks Simulation, ANSYS basics), GD&T (ASME Y14.5), tolerance stack analysis

Manufacturing: Injection molding, sheet metal, DFM/DFA, machining basics

Testing: Vibration and durability test rigs, data acquisition (LabVIEW basics), root cause analysis

CERTIFICATIONS

Certified SolidWorks Professional (CSWP), 2022

EDUCATION

B.S. Mechanical Engineering, Michigan State University, 2021

Fictional example by FindAJobAI: the person, employers and numbers are invented.