



GitHub

# Sebastian Barrera

(954)-806-2238 Davie, FL

sebastianbarrera@live.com

---

## Education

Florida International University, Miami, Florida

**Bachelor of Science, Mechanical Engineering**

**August 2015- May 2019**

---

## Work Experience

### Collins Aerospace, *Quality Engineer*

Mach 2019- Present

*A Quality Engineer in a fast-paced manufacturing Maintenance Repair and Overhaul (MRO) facility. As an Engineer my duties involve being the Nadcap Focal of the facility, Quality Clinic Lead, Shainin Red-X apprentice, Supplier Quality for the facility, and DIVE / process improvement facilitator & coordinator:*

- Lead Nadcap and Customer audits. Implement RCCA to maintain yearly Nadcap certification in special processes.
- Maintain compliance in Chemical Processing, Non-Destructive Testing, and Shot Peening lines day to day.
- Analyze and drive process improvement with defect data captured in the Quality Clinic.
- Lead and coordinate Shainin Red-X projects to reduce defects and improve customer OTD.
- Coordinate, assign, and monitor DIVEs and other process improvement activities within Miami.
- Create work instructions for different part manufacturing and office documentation processes.

### Collins Aerospace, *Engineering Intern*

November 2018 – Mach 2019

*Working in manufacturing with an Engineering and Management team to become NADCAP certified in the Shot Peen and Electroplating departments, in which day-to-day responsibilities are as followed:*

- Draft technique sheets for electroplating, shot peen, and chrome grind processes.
- Create and analyze saturation curves for different shot peen manufacturing processes.
- Communicate ideas between engineering, management, and operators to improve manufacturing methods.
- Review CMMs, SOPMs, and CATIA Engineering Drawings to create MS Paint drawings to showcase process techniques.
- Evaluate existing process techniques to ensure they are up to various standards including BAC, MIL, and DPS specifications.
- Use the SAP and Citrix portals to inspect Work Orders in order to prepare process techniques.
- Help with the training, assembly, and operation of Brush Nickel machine for its plating process.

---

## Projects

### Quality Clinic Improvement

March 2022 – Present

- Lead daily Quality Clinic meetings with cross-functional teams to monitor KPIs and shop defects.
- Perform a daily triage on defect parts based on the type of defect and impact to the business.
- Report out monthly quality metrics.
- Develop robust Root Cause Corrective Actions to reduce defects.
- Quarterly defect reduction of 15 to 30%.

### Shainin Red-X – Major Aircraft Component Surface Finish Defect Reduction

March 2020 – June 2020

- Lead a team to reduce Chrome Breaks defect in a C-17 major part.
- Utilized Shainin Red-X methodology to analyze and collect data to find root-cause.
- Used robust Root-Cause-Corrective-Actions to reduce defect.
- Established read-across actions for other programs and part numbers.
- Monitored and ensured actions were effective. Reducing defect by 87% therefore increasing customer OTD & quarterly profits.

---

## Relevant Courses and Skills

- |                      |                      |                          |                   |
|----------------------|----------------------|--------------------------|-------------------|
| • SolidWorks         | • Lean Manufacturing | • Microsoft Office Suite | • Heat Transfer   |
| • HTML               | • Shainin Red-X      | • VBA                    | • Fluid Mechanics |
| • CSS                | • DIVE & RCCA        | • Microsoft Teams        | • Thermodynamics  |
| • JavaScript         | • EtQ                | • Zoom                   | • Manufacturing   |
| • UM Coding Bootcamp |                      |                          |                   |
-