**Chace Taylor Claborn**

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**Education**

Auburn University Graduation: 2022  GPA: **3.79**

Bachelor of Science in Mechanical Engineering

**Skills**

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| * Creo Parametric, Siemens NX, Solidworks * SQL, Siemens 840D, Python, MATLAB, G-Code * ITS Jira, Windchill PLM, Internal MES | * Manufacturing Ideology, GD&T, 3D Printing * Instrumentation, Testing, R&D, Production * Redash, Databricks, Tableau, Microsoft Office |

**Professional Experience**

Blue Origin Huntsville, AL July 2022 to present (45-50 hours per week)

***Manufacturing Process Engineer II – Machine Shop***

* Lead GD&T application and design-for-manufacturability feedback for turbomachinery, valves, and other engine components - reducing cycle time, minimizing non-conformances, and improving part Cpk values.
* Leverage CAD/CAM software to design custom fixtures and tooling, analyze CNC programs, redline engineering drawings, generate exploded assembly views—supporting efficient machining and enhanced part manufacturability.
* Drive machining process development and standardization for CNC operations in support of rocket engine hardware.
* Designed and implemented CNC probing routines and macros to streamline setup processes, reduce manual intervention, and eliminate variation in critical dimensions.
* Led iterative NPI process refinement, utilizing root cause analysis and continuous feedback loops to optimize machining techniques and drive successful production outcomes.
* Collaborate with external vendors to implement cutting tool trials and enhance software (e.g., Vericut for CNC simulation, PLC programming for Hydroforming press) to improve machining precision and process efficiency.
* Organize best practices, conduct RCCAs, and facilitate knowledge transfer among machinists and programmers.

***Component Manufacturing Engineer I-II***

* Develop and update manufacturing work instructions and support the shop floor for BE-4 and BE-3U rocket engine components such as turbomachinery, valves, and various other components.
* Perform comprehensive engineering analysis and dispositions of non-conformances, applying advanced problem-solving techniques to ensure compliance with design specifications and production standards.
* Defines, develops, implements, and optimizes Hydroformed parts and equipment consisting of exotic materials, dies, and other supporting tooling; operates, troubleshoots, and programs recipes for new hardware.
* Utilize Python and SQL for data analysis, creating queries and scripts to identify trends, track non-conformances, and support manufacturing improvements (e.g., building dashboards and visualizations on Redash and Databricks)
* Apply Lean manufacturing principles to streamline workflows and drive continuous improvement, utilizing ITS JIRA to track team progress, manage tasks, and align objectives with operational goals.
* Track project milestones and collaborate with cross-functional teams to ensure on-time delivery of insourced components, driving vertical integration and enhancing production workflow.

Aerojet Rocketdyne Huntsville/Decatur, AL May 2021 to August 2021 (40 hrs/week)

***Systems/Test Engineer Intern***

* Reviewed and updated Field Service Manuals that specified rocket engine test procedures for Atlas/Delta RL10.
* Monitored rocket engine testing & assembly to ensure procedures were followed and safety precautions were observed.
* Performed inspection of engine components, interfaces, and test configuration to ensure acceptability per procedures.
* Developed an operational procedure that specified the handling and usage of rocket motor/engine shock recorders.

Precision Grinding Inc.Birmingham, AL May 2020 to January 2021 (36 hrs/week)

***Process Engineer/Quality Inspector Intern***

* Responsible for reading detailed drawings and close-tolerance part inspection of machined and fabricated steel parts.
* Wrote scripts for Hexagon Romer Arm on PolyWorks to inspect and reverse-engineer parts using CMM and utilized manual gauges for precision measurements.
* Documented inspection results and generated quality reports, applying GD&T controls for compliance.
* Accomplished writing a Standard Operating Procedure for CMM to help future company employees.

WhiteFab Inc.Birmingham, AL May 2017 to Aug 2020 (2 hrs/week)

***Machine Shop Department Intern – (Part-Time)***

* Gained experience with CNC Vertical Machines, CAD, lathes, forklifts, overhead cranes, and fabrication of steel parts.