TYLER CARROLL

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https://infiniteloop12.github.io/cv/

EDUCATION

Oklahoma State University, Stillwater, OK
Bachelor of Science, Mechanical Engineering — May 2016

EXPERIENCE

Raytheon Intelligence and Space, Dallas, TX
Senior Product Engineer I — January 2020 – Present

- Created VBA scripts to pull and clean defect data from SAP database
- Planned and oversaw implementation of 2nd source manufacturing capability for radar transmitter and receiver modules as a liaison between sister site and multiple departments
- Dispositioned, tracked, reported production defects, and worked with process engineers to find root causes
- Led meetings and communicated project status weekly to stakeholders and management
- Forecasted +$1M cost, hours per unit, and throughput to project how many new machines, operators, and tooling needed for full production
- Developed and ensured product specifications and qualification plans were met, as well as developed assembly instructions, workflows, and data collections for all higher-level assemblies and sub-assemblies
- Reduced capacitor costs by 12% for a communications module by qualifying a new supplier
- Increased thermal and electrical performance of MMIC sub-assemblies by submitting cross-sections and SEM jobs to optimize the cure profile and sintering of a silver sintered epoxy

Finisar/II-VI, Sherman, TX
Senior Process Engineer — September 2018 – January 2020

- Created SQL queries and VBA scripts to automatically pull/clean product and machine data from databases to make weekly SPC reports
- Wrote VBA scripts that helped prevent operator errors by outputting product data to text files that could be read by the laser engraving software, as well as reformatting XML files so they can be read properly
- Process owner of die-attach, all environmental testing, and CNC video measurement metrology
- Qualify and certify ten new toolsets from site start-up to mass production and implemented processes, workflows, data infrastructure, in-line process control charts, and KPI
- Main contributor in solving a long-standing, interconnected die shear issue which led to 700% die shear increase by working with back-end engineering team to perform DOEs to isolate product and process issues
- Co-led a team that exceeded many KPI during a six-week development plan that decreased cycle time through the evaluation loop by 62%, decreased particles by 50%, reduced scrap, increased capacity, increased yield improvement by 10%, and increased first-pass yield by 55%
- Generated work instructions, process documents, workflows, engineering change orders, build requests, deviations, product change notification, one-point lessons, PFMEA's, and submit failure analysis jobs

Access Optics, Broken Arrow, OK
Manufacturing Engineer I — September 2017 – Sept 2018

- Lead engineer for military projects, optical components, and assembly production for medical devices
- Conducted R&D, first article inspection, environmental, durability, and performance tests for approval
- Developed and maintained pricing and process estimation tool to provide quick and accurate product quotes
- Designed 3D models and drafted, approve, and released drawings using GD&T
- Documented non-conforming product and disposition via material review board reports

SKILLS

- Software: Python, VBA, HTML, CSS, SQL, Flask, Bootstrap, SAP Scripting, SolidWorks
- Self-taught Bootcamp: "100 Days of Code: The Complete Python Pro Bootcamp for 2022"