MIKE DUKE

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EXPERIENCE

Industrial Engineer, *Continental Manufacturing Group*, Blacksburg, VA   May 2023 - Present
- Improve production flow and reduce waste across three manufacturing lines using lean and Six Sigma methods.
- Work with production, maintenance, and quality teams to solve downtime, scrap, and bottleneck issues.
- Create and refine layouts, standard work, and workstation designs in AutoCAD to meet cost and cycle-time goals.
- Prepare process maps, PFMEAs, and presentations for engineering reviews and leadership meetings.
- Support projects that increase throughput, improve reliability, and lower operating costs.

Process Engineer, *J&J Consumer Health Manufacturing*, Blacksburg, VA   Jun 2020 - May 2023
- Developed and improved assembly and packaging processes for high-volume consumer products.
- Worked with operators and quality teams to roll out process updates that met FDA requirements.
- Led time studies, cycle-time reviews, and 5S projects that cut changeover time by 15 percent.
- Trained interns on data collection, documentation, and root-cause analysis for recurring issues.
- Built an automated performance dashboard using Tableau and SQL to track technician response times, improving department-wide labor utilization by 12%.

Operations Engineer I, *Carilion Clinic Facilities & Operations*, Blacksburg, VA   May 2018 - Jun 2020
- Improved preventive maintenance schedules and helped diagnose equipment issues using CMMS data and basic testing tools.
- Increased equipment uptime by eight percent by adding predictive maintenance indicators and performance tracking.
- Supported regulatory inspections by documenting results and coordinating follow-up work.
- Maintained more than 99 percent service availability by resolving work orders quickly and working closely with technicians and contractors.
- Wrote maintenance reports and equipment history files to improve troubleshooting and recordkeeping.
- Integrated IoT vibration sensors with the existing CMMS to transition from reactive to condition-based maintenance for critical HVAC systems, saving $15k in emergency repair costs annually.

Industrial Engineering Intern, *Blue Ridge Manufacturing*, Blacksburg, VA   May 2017 - May 2018
- Assisted with time studies, workflow analysis, and layout updates for a machining and assembly area.
- Collected production and downtime data to support daily improvement meetings and KPI tracking.
- Helped redraw floor layouts in AutoCAD to reduce operator travel and improve material flow.
- Supported continuous improvement events by preparing data, documenting actions, and updating standard work.

EDUCATION

BSIE, *Virginia Tech*, College of Engineering   May 2018

SKILLS

- **Design:** AutoCAD, SolidWorks, Creo, 3D Printing (FDM, SLA), Line Balancing, Standard Work, PFMEA, DFM/DFA, Lean Manufacturing, Ergonomics Analysis
- **Analysis:** Python (NumPy, Pandas, SciPy), MATLAB, Minitab, JMP, LabVIEW, Excel (advanced functions, pivot tables, VBA), Statistical Process Control, Data Visualization