Drew Bowler
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SUMMARY

Senior manufacturing software test engineer with 4.5 years supporting high-volume wearable production, architecting Python-based factory test platforms that increased yield from 95% to 99% while reducing cycle time by 75%, and automating production-safe releases.

EXPERIENCE

Senior Test Development Engineer   July 2022–Present
WHOOP (Boston, MA)
- Architected and maintained a Python-based factory test platform supporting 20 automated stations across four production lines, enabling daily throughput in the thousands and lifetime production in the millions.
- Led Gen 4 to Gen 5 factory test evolution, improving first-pass yield from ~95% to ~99% through tighter sensor validation, calibration routines, and failure classification.
- Designed and validated ECG test fixtures and contributed to all major fixture designs spanning board-level test, system functional test, firmware update, and burn-in stations.
- Implemented production-grade software controls including mandatory unit and simulation testing, test report generation, and software hash validation to prevent unverified code from reaching manufacturing.
- Owned the factory software release pipeline, integrating GitHub Actions for automated testing, build, and deployment while coordinating internal sign-off and Arena-controlled external releases.

Product Industrialization Test Engineer   June 2021–July 2022
Philips (Cambridge, MA)
- Re-architected legacy LabVIEW-based test report parsing by rewriting in C#, reducing runtime by over 80%.
- Supported an emergency CAPA effort by collecting, parsing, and interpreting data using Python and Minitab for over 2,000 production units to prove compliance.

PROJECTS

Beacon Hill Compliance Tracker – beaconhilltracker.org/   August 2025–Present
- Designed and implemented an adaptive legislative document parsing pipeline and state-machine–driven timeline engine to track Massachusetts Legislature compliance with procedural rules, enabling auditable, rule-based detection of deviations over time.

Beacon Hill Stipends – beaconhillstipends.org/   November 2025–Present
- Built a statute-driven compensation calculation system for all 198 Massachusetts legislators, wrapping every computed value in a provenance object to provide transparent, traceable explanations for each salary component.

EDUCATION

B.S. Computer Engineering, Magna Cum Laude – University of Massachusetts Lowell   2021