

Robert (Bip) Sutton

Technical Operations & Implementation Lead

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SUMMARY

Technical operations, support, and implementation operator. Six years at Cummins owning live engine-test operations and incident response, with about half the job hands on the equipment: engine teardown and rebuild, installs, drivetrains, calibration, and welding and fabrication. Promoted off the production floor into a technical classification on merit without a degree. Ten years since owning and running my own company, plus current work on applications, APIs, SQL, and AI-assisted delivery. Investigate the evidence, explain it, finish the work.

SKILLS

Operations and support: live incident response, root-cause investigation, log and error analysis, failure reproduction, evidence capture, supplier and vendor corrective action, escalation, runbooks, shift handoff documentation, operator training

Implementation and delivery: requirements gathering, process mapping, business rules, workflow configuration, acceptance criteria, release checks, customer and stakeholder communication, concurrent project ownership, P&L accountability

Software and data: Python, FastAPI, React, TypeScript, SQL, PostgreSQL, REST APIs, JSON, XML, Linux and the shell, Git and GitHub, automated testing, data pipelines, schema design

Hands-on service and fabrication: engine teardown, rebuild and installation, drivetrain build-up and installation, generators and trucks, fluid and fuel systems, electrical and harness work, sensor calibration, welding and fabrication of test hardware, material handling equipment operation including stand-up and sit-down lift trucks and specialized engine movers

Engine diagnostics and calibration: J1939 SPN/FMI fault code diagnosis, Calterm ECM diagnostics, Cyflex test-cell automation, CAN instrumentation, sensor calibration

Test and measurement systems: AVL PUMA, LabVIEW, HORIBA emissions carts, FTIR analyzers, DAQ, test automation, traceability and ISO audit evidence; working exposure to PI Historian, dSPACE HIL and ETAS INCA

Procurement and AI tooling: SAP Ariba capital and non-catalog purchasing, specifications, PO and delivery follow-up, supplier negotiation, daily working use of Claude and Codex, Anthropic API

EXPERIENCE

Weekend Shift Team Lead, Engine Testing | Cummins Inc. | 2010 - 2016

Plant One and Cummins Technical Center | Columbus, Indiana

Technical operations scope: weekend incident lead for concurrent engine-test programs | DAQ, Linux, SQL, SAP Ariba capital purchasing

- Owned weekend engine-test operations across concurrent programs and was the first response when a live test cell, automation system, database, or instrumentation chain failed outside normal engineering hours.
- Selected off the production floor by the plant engineer for a technical special assignment, and moved from the DWU into the OCU on merit and without a college degree. A rare internal path at a unionized Fortune 500 manufacturer.
- Diagnosed failures on running test cells: reproduced the problem, isolated the root cause, separated setup error from a real equipment or software defect, captured the evidence, and drove corrective action with design engineers, test engineers, suppliers, and vendors.

- Roughly half the role was hands on the equipment: complete engine teardown and rebuild, new engine installation, and drivetrain build-up and installation, since every engine that went on a stand required its own installed separately. Also generators, trucks, fluid and fuel systems, electrical and harness work, sensor calibration, and welding and fabrication of test hardware and cell modifications.
- Worked government and defense engine programs, including the V903 and development engines that carried no public designation, where access was restricted and data handling was controlled. Weekend Safety Team Lead and trained first responder.
- Worked daily in PI Historian, DAQ and sensor systems, Linux, and SQL. Designed and maintained SQL schemas for test and measurement data and queried enterprise warehouses for troubleshooting, traceability, and engineering reporting.
- Programmed data acquisition and test automation with Python, LabVIEW, and AVL PUMA, and worked with ETAS INCA, HORIBA, dSPACE HIL, CAN instrumentation, and sensor calibration workflows.
- Bought specialty tooling, long-lead components, and capital equipment through SAP Ariba. Coordinated specifications, pricing, PO status, delivery problems, and supplier follow-up through completion.
- Helped run ISO audits when Cummins adopted ISO certification: coordinated evidence gathering, corrected findings, and walked auditors through the test data systems. Audited Coordinate Measuring Machine records against engineering requirements.
- Trained weekend operators and technicians on the test systems and wrote the handoff instructions the next shift worked from: symptoms, checks already run, current impact, and the next action.

Founder & Operator | Bips Bites | 2016 - Present

Columbus, Indiana

Concurrent independent software and data projects run under this umbrella and listed below as project work, not separate employment

- Own and operate a catering and direct-to-consumer food company serving churches and community events across southern Indiana, including whole-hog barbecue. Own customer quoting, purchasing and supplier negotiation, food and labor costing, production and staffing schedules, fulfillment, ecommerce, and P&L. Developed a packaged BBQ rub with Marion Kay Spices of Brownstown, Indiana, from recipe specification through supplier negotiation, quality standards, packaging, inventory, and online sales.
- Project work: built and deployed Clotho (clotho-pi.vercel.app), a FastAPI, React, and PostgreSQL procurement-intake application that turns email and PDF requests into structured records, resolves supplier names, and tracks work through the purchasing lifecycle. Also built a public NFL data platform (github.com/bippal/colts-defensive-pursuit-lab) with 410 automated tests, pinned sources, idempotent rebuilds, and an append-only batch-lifecycle audit ledger. Separately, built and shipped a live Stripe-billed subscription product.
- Project work: supported an external client, Jason Raffa, on a commercial API integration for GEO workflows and clickable website hotspots. Reproduced the failure, traced the integration, and repaired it for a product intended to sell at about \$2,000 per implementation.

Store Manager | Rent-A-Center | 2003 - 2009

Seymour, Indiana

- Promoted to Store Manager at age 20. Held P&L responsibility for a five-person location carrying approximately \$2 million in rental inventory.
- Managed hiring, training, scheduling, sales, collections, customer conflict resolution, agreements, inventory control, and regulatory compliance.

EDUCATION AND PUBLIC WORK

Seymour High School | Seymour, Indiana | High school diploma, 2002

Winner, Indiana state web design contest, 2002. Co-built Seymour High School's official website.

Public work: clotho-pi.vercel.app (live procurement-intake demo) | github.com/bippal/colts-defensive-pursuit-lab (public repository, 410 tests) | bipsutton.com