STEVEN McCLAIN

Manufacturing Engineering Leader — Aerospace Rate Production, Precision Machining & Production Systems

Seal Beach, CA · 562-805-6657 · stevenjmcclain@hotmail.com · stevenjmcclain.com

Aerospace programs supported: Relativity Space · Northrop Grumman · Blue Origin · Lockheed Martin · ULA · Boeing · Honeywell · Janicki

SUMMARY

Hands-on manufacturing engineering leader with 10 years across aerospace hardware and regulated production. Currently leading an engineering team through the development-to-production transition and scaling to meet rate for flight propulsion hardware — GEM 63 solid rocket motor nozzles and V-22 components — building the manufacturing methods, processes, floor flow, MES tooling, and data systems that increase production rate, reduce touch time, and improve build quality. Deep in precision machining (3/4/5-axis), AS9100 configuration management, and Python/SQL production analytics. Leadership span runs from hands-on 5–6-person engineering teams to directing a 200-person regulated operation — partnering directly with design engineering, setting team goals, and driving them to completion.

PROFESSIONAL EXPERIENCE

Votaw Engineering · California — **Feb 2026 – Present**

Process Engineer — Production Systems & Throughput Lead

- **Leading an engineering team through a development-to-production transition, scaling a job shop to meet rate** for GEM 63 solid rocket motor nozzles and V-22 flight hardware — built the manufacturing methods and floor flow holding a sustained ship rate of 2 nozzle sets/month.
- **Responsible manufacturing engineer on launch-vehicle structural hardware for Relativity Space** — process plan, fixturing, and NC programming from ERB kickoff through first article; project-manage contracted work from Lockheed Martin, Blue Origin, and Northrop Grumman.
- **Built a custom MES from scratch** (SQL Server / Python) providing live production visibility; created and manage all plant data analytics — delivery, yield, capacity, and WIP.
- Lead a 5-person team (manufacturing/design engineers plus IT): set team and individual goals and drive progress to completion.
- Partner with design engineering, quality, and production on build issues, NCR dispositions, and corrective-action closure.

Aero Precision Engineering Inc. · California — **2020 – Feb 2026**

Engineering Manager

- **Managed engineering for precision-machined aerospace structural components** across the Relativity Space, Northrop, Blue Origin, Lockheed, ULA, Boeing, Honeywell, and Janicki supply chains; supervised sheet metal fabrication and programmed 4/5-axis machining (NX, Mastercam).
- Managed a 6-person team of machinists and engineering staff; also owned and ran the company's entire IT function.
- Designed fixtures, tooling, and flight hardware; interfaced with design engineering, manufacturing, and production teams on engineering-to-manufacturing transfer; owned customer technical relations with Northrop Grumman and Janicki.
- Maintained travelers, routings, manufacturing BOMs, and inspection criteria under formal AS9100 configuration management, keeping builds aligned to released engineering revisions.
- Developed Python/SQL tools on Epicor/E2 ERP data to track delivery, yield, and capacity trends — earlier visibility into production risk.

PMD Laboratory · California — **2016 – 2020**

Operations Manager

- Directed a ~200-person operation in a regulated CLIA/FDA environment; standardized procedures and operating metrics improved throughput 18% while maintaining full regulatory compliance.

CORE COMPETENCIES

- Development-to-Production Transition
- Scaling to Meet Rate
- Production Rate · Touch Time · Build Quality
- Throughput, Takt & Line Flow
- Precision Machining (3/4/5-Axis)
- Fixture, Tooling & Flight Hardware Design
- Engineering Team Leadership (5–200)
- Team & Individual Goal Setting
- MES Development & Live Visibility
- Python / SQL Production Analytics
- ERP (Epicor / E2) · NX · Mastercam
- Customer & Stakeholder Relations
- AS9100 & Configuration Management
- NCR / MRB & RCCA (5-Why, 8D)
- Quality Systems & Inspection Criteria
- Engineering Change Implementation
- DFM / Manufacturability
- Project Management (LM, BO, NG)

EDUCATION & CERTIFICATIONS

Mechanical Engineering & Physics coursework · GD&T & Blueprint Interpretation · Lean Six Sigma Green Belt (in progress)