



MILES CRAIG

ADDITIVE MANUFACTURING ENGINEER

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Orange County, CA

01 – ABOUT

Additive manufacturing engineer with 15 years owning printers, parts, and processes — desktop FDM, industrial polymer, melt-pool sensing, and multi-laser powder bed fusion for flight hardware. Scaled SpaceX Raptor Additive deliveries 10x, grew the fleet 4x, raised utilization to 85%, and cut turnover cycle time 75%. Runs Elon's Algorithm and first-principles physics (powder, lasers, mechanics) to ship high-spec hardware at rate.

10x

Raptor AM Deliveries

4x

Printer Fleet Growth

85%

Machine Utilization

75%

Turnover Time Cut

23%

Print Time / \$4M

4

Kickass Awards

02 – WORK

2019 - 2026

SpaceX · Additive Manufacturing Engineer II

Designer and manufacturer of reusable rockets enabling NASA crew launches, Starlink, and Grok AI.

Additive Printer Platform Owner · Multi-Laser Powder Bed Fusion (LPBF)

- Scaled deliveries 10x and productionized the fleet 4x while building a gold-standard print lab from scratch.
- Raised utilization to 85% through root cause analysis, tooling, software, and process controls; qualified a new recoater nozzle, and increased sieve life 5x.
- Cut PM downtime by moving to cycle-based frequencies, internalizing PM, and building spares — saving ~\$200k/year. Cut labor and turnover cycle time 75% via Elon's Algorithm.
- Built in-situ machine data/log analysis for conditional PM and faster root cause diagnosis. Drove software feature improvements through 8 major revisions.

Raptor Fuel Preburner Part Owner

- Owned development through qualification of Raptor components from metal powder, print file, print, powder removal, heat treat, tensile, containments, and tooling.
- Deleted parts and processes by combining engine components — removed major V2 leak paths, converted bolted joints to welds, integrated regen cooling, and deleted Thermal Protection System.
- Major contributor to a multi-disciplinary cracking investigation (design, analysis, materials, additive, heat treat, engine test). Eliminated print defects via DOE/FAI; validated with CT and metallography.
- Deleted manual borescope of 100+ features with a two-stage powder-removal system; cut cycle time 50%. Deleted build plates and by-eye printer alignment with custom tooling.
- Cut print time 42 hr (23%) — ~2 printers / \$4M — by qualifying 100 µm parameters with higher elongation and tighter variation.
- Built Python analysis and dashboards across powder, printer, heat treat, and tensile data on hundreds of parts; 98% tensile yield. Released 100+ engineering-master revisions.
- Led daily lab ops and monthly production alignment. Mentored interns and onboarded engineers.

2016 - 2019

Stratronics · Systems Engineer & Data Analyst

Melt-pool thermal sensors for industrial additive processes.

- Designed sensor enclosures and the imaging workflow from calibration through acquisition and analysis.
- Ran lasing-parameter DOEs and tied results to materials inspection.

2015

Purple Platypus · Application Engineer

Diamond-level Stratasys reseller.

- Qualified FDM and PolyJet applications, materials, and fit for aerospace, medical, and industrial clients.
- Drove DFAM, print files, and cost analysis; de-risked equipment sales with demos, trade shows, and customer projects.

2013 - 2015

Airwolf 3D · Lead Engineer & Technical Trainer

Desktop FDM printer startup.

- Two U.S. patents on the HD system and print head.
- Qualified 15+ materials through DOE and trained 150+ customers.

03 – EDUCATION · PATENTS · AWARDS

2009 - 2014

B.S. Mechanical Engineering, Cal Poly Pomona

2015+

Springboard Data Science Career Track · Codecademy Data Analysis

Two U.S. Patents (Airwolf HD System + Print Head) · Four SpaceX Kickass Awards

04 – ELON'S ALGORITHM

01 Question Requirements · 02 Delete Unnecessary Steps · 03 Simplify & Optimize · 04 Accelerate Cycle Time · 05 Automate