RAYMOND CURRY

DIRECTOR, ENGINEERING & DESIGN

(703) 314-2095 ray@raycurry.com

CLEARANCE ELIGIBILITY

U.S. Citizen, over the age of 18.

LANGUAGES

Programming & Scripting
C/C++ • Fortran • Python • Bash
PowerShell • Batch

Data, Automation & Web Dev
Excel (Macros/VBA) • Matlab
HTML • CSS • JavaScript
PHP • MySQL

Machine & Hardware Control
G-Code • VHDL • DMX512
lighting control

AI & Machine Learning
Prompt engineering • RAG
Knowledge retrieval systems
AI-driven data analysis &
visualization • Workflow
integration for AI models

SOFTWARE PACKAGES

CAD, CAM & Design Tools
SOLIDWORKS • AutoCAD
Fusion 360 • SolidEdge
KeyShot 3D Rendering
VCarve Pro • WoodWOP8.1
LightBurn • Cura
NextEngine ScanStudio

Automation & DoE Analysis
MODDE Suite • Open
Automation Software

Business & Creative Suites
Microsoft Office Suite
Adobe Suite • Sage 100
HubSpot

SUMMARY

Engineering leader with 10+ years in R&D, manufacturing, and operations, specializing in design for manufacturability (DfM), additive manufacturing (AM), in-process inspection, embedded sensing, and rapid prototyping. Skilled in cost engineering, process optimization, lifecycle management, regulatory compliance, and cross-functional leadership. Proven ability to align innovation with strategic goals, secure funding, and deliver programs across research, industry, and government.

EXPERIENCE

Director, Engineering & Design

EOS Surfaces, LLC.
Dec 2015 - Present • Norfolk, VA

Dual-role leader from the ground floor, overseeing engineering R&D and daily operations for a vertically integrated healthcare polymers company pioneering cuprous oxide–infused antimicrobial surfaces. Instrumental in developing, scaling, and commercializing the only synthetic hard surface EPA-registered for public-health claims, proven to continuously kill harmful bacteria within two hours.

- Directed day-to-day operations of a 35,000 sq ft manufacturing facility with 20+ employees producing more than $10M annually. Selected and purchased capital equipment, built BOMs, and delivered detailed cost models for pricing and margin analysis. Responsible for staffing strategy, recruitment, and labor management, aligning roles to strengths, and mentoring interns and staff.
- On-site for four hospital construction projects totaling $380M. Oversaw EOScu installations for the world's largest clinical trial for copper-infused surfaces. Managed a 30+ cross-site team, represented EOS at daily contractor and hospital leadership meetings, and recovered project schedules while maintaining quality and compliance.
- Resolved a critical field failure jeopardizing over $300K of installed product and a key business relationship by leading Design of Experiment (DoE) driven material selection and in-house validation; qualified a polymer compatible with $250K of existing tooling and executed a 24-bed controlled trial. Replaced affected units, restoring customer confidence and preserving the hospital's long-term commitment.
- Collaborated with consulting chemist to develop and refine new polymer formulations as well as author documentation supporting seven awarded patents, enhancing performance

HARDWARE

Control & Embedded Systems
Siemens PLCs • Raspberry Pi
Arduino • Teensy • PIC

Comm. & Machine Control
GRBL • ESC/BLDC systems
LiPo battery management
RFID/NFC systems
FrSky/X9D radio control platforms

MACHINERY

CNC and Automated Machinery
Weeke Venture 108M • ShopBot
HyperTherm plasma cutter
Gruber AutoCaster

Additive Manufacturing
Prusa i3 MK3 • Bambu X1C
Creality Ender 3v2
LulzBot TAZ Pro
Formlabs Form 2 • Glowforge
ORTUR Laser

Machining Equipment
Manual & Automated Mill/Lathe
Sheers • Press brake
English wheel • Cold saw

Material Finishing Equipment
Timesavers 37" wide-belt sander • Belino 40" profile sander

Precision Measurement Tools
Leica Disto S910 • NextEngine 2020i (multi-stripe laser triangulation 3D scanner)
Photogrammetry
Structured Light Scanners

Material Handling & Access Equipment
Forklifts • Scissor lifts
Boom lifts

and manufacturability of EOScu as well as opening up new product lines.
- During height of COVID was invited to New York City to collaborate with New York MTA on antimicrobial transit applications; partnered with OEMs to integrate EOScu at the design stage.
- Directed EPA efficacy testing and third-party microbiology labratory validations. Designed internal cleaner-compatibility test methods with Clorox, Diversey, EcoLab, 3M, PDI, and GoJo.
- Managed a $500K roof replacement project while maintaining 100% operational uptime. Coordinated equipment and personnel moves, managed safety protocols, and liaised with contractors, city officials, and inspectors to ensure compliance and on-time completion.
- Spearheaded development of fire-retardant EOScu formulations, advancing them through rigorous lab testing to adoption in Boeing's 2022 ecoDemonstrator.
- Engineered and qualified EOScu products to satisfy IDIQ contract specifications, securing catalog inclusion and establishing repeatable programmatic pathways for hospital purchasing.
- Sustained OSHA, EPA, and fire ordinance compliance, including explosive materials inspections.

Co-Owner/Co-Founder
Type Two Labs, LLC.
Sep 2022 - Present

Co-founder of an outdoor gear startup bringing innovative consumer products from concept to market. Worked on all phases of product development, funding, manufacturing, and sales, combining technical expertise with entrepreneurial strategy to launch and scale a successful e-commerce brand.

- Invented and launched the Travel RX magnetic pill case, addressing a market pain point through rapid prototyping (3D printing, CNC machining, mold making, and CAD modeling).
- Built financial models and executed a full go-to-market campaign, including video production, digital ads, and social media engagement.
- Launched a Kickstarter campaign raising $40K (760% of goal) and shipping to 1,000+ customers on time and to specification.
- Scaled manufacturing by contracting additional units, resolving technical issues with suppliers, and transitioning to Amazon sales.
- Advanced product portfolio with version 2.0 design improvements, expanded offerings, and secured U.S. Trademark registration for brand protection.

Web Programmer & IT Specialist/Plasma Cutting Technician
FantomWorks (Discovery Channel TV Show)
Oct 2014 - Dec 2015 • Norfolk, VA

Initially hired for web development, quickly expanded responsibilities to encompass IT support and fabrication,

HANDS-ON SKILLS

Elec. Circuit Troubleshooting
Oscilloscope • Multimeter • Continuity testing & signal tracing • Soldering (through-hole & surface-mount) • Ethernet termination and cable testing

Precision Inspection
Surface roughness meter
Glossmeter
Calipers/micrometers
Dial indicators • Laser distance and alignment tools
Go/No-Go gauges

Manufacturing Processes
Injection molding • Mold making (silicone, urethane, composite)
Profile extrusion • Composite layup (fiberglass, carbon fiber, resin)
Solid surface fabrication and finishing • Lamination

Mechanical Fabrication
Welding (MIG/TIG/Stick) • 80/20 aluminum framing construction • Carpentry (structural & finish) • Automotive repair and maintenance

HONORS & AWARDS

Eagle Scout, BSA
Division 1 Athlete - Diving, ODU

WEB & SOCIAL

LinkedIn
linkedin.com/in/raymondcurry

culminating in on-screen contributions as a key member of the FantomWorks team.

- Architected, implemented, and maintained a high-volume e-commerce platform managing over 10,000 SKUs, ensuring seamless online sales operations.
- Provided comprehensive IT support across the company, managing networks, user hardware/software, and troubleshooting to maintain operational continuity in a fast-paced production environment.
- Designed and programmed new product lines, leveraging CNC and plasma cutting technologies to fabricate custom metal components for vehicle restoration/modification projects featured on the television show as well as for general sale.
- Collaborated cross-functionally with fabrication, design, and production teams to optimize workflows and integrate digital design with hands-on manufacturing.

SND Web Design
Owner, Web Developer
Jan 2004 - Oct 2014 • Falls Church, VA

Founded and scaled a profitable web development firm, acquiring and managing a diverse client portfolio across industries and driving consistent year-over-year revenue growth. Provided end-to-end creative, technical, and operational leadership, earning a reputation for high-quality, tailored work that enhanced client visibility, efficiency, and growth.

- Led full lifecycle design and development of websites, promotional media, and front/back-end applications using HTML, CSS, JavaScript, PHP, MySQL, and Adobe Creative Suite; delivered tailored solutions that improved client engagement and business outcomes.
- Implemented and customized CRM/content platforms (WordPress, Joomla, Drupal, Magento, ConcreteCMS) to align with client branding and operational needs; built and deployed large-scale Caspio-based applications, several still serving as core systems for international business models.
- Architected proprietary internal tools in Perl and Java for content management and data integration, streamlining updates and reducing manual effort; oversaw recruitment and management of contractors to optimize team capacity and delivery across concurrent projects.
- Directed marketing and branding initiatives, generating a steady pipeline of new and repeat business through targeted outreach and campaigns.

EDUCATION

Bachelor of Science in Computer Engineering
Old Dominion University

Minors in Engineering Management, Computer Science, and Web Design.