

# PALADIN FRONT | CAPABILITIES STATEMENT

Production AI, Full-Stack Software, 3D Simulation/Digital Twins & Scientific Analytics for Government Missions

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| <b>Socioeconomic Status:</b> 90% Service-Disabled Veteran-Owned Small Business (SDVOSB), Minority-Owned (Asian-Pacific American), SDB | <b>Primary NAICS:</b> 541512, 541511, 541519, 541715, 518210, 541611, 541690, 541990, 611420 | <b>Procurement Paths:</b> SDVOSB Sole-Source (≤ \$5M, FAR 19.1406 / VAAR 819.7007), SAP (≤ \$350K, FAR Part 13), GPC Micro-Purchase (≤ \$10K) |
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## CORE OVERVIEW

Paladin Front delivers production-grade artificial intelligence, full-stack web and mobile applications, real-time 3D simulation/digital twins, and scientific/statistical data analytics for U.S. federal, state, and local agencies. Every engagement is **100% Principal-Engineered** by Founder **Blaise John Pascual**—a former **U.S. Marine Corps Captain (O-3)** (held active **DoD TS/SCI Clearance**), **90% Service-Disabled Veteran**, **University of Washington B.S. in Microbiology** graduate, and **B.S. in Game Programming & Simulation Development (4.0 GPA, SNHU)**. We deliver working software and reproducible models before and during performance—eliminating integrator overhead and handoff risk.

## CORE TECHNICAL COMPETENCIES

- Production AI, Agentic Systems & Air-Gapped LLMs (NAICS 541715 / 541512):** Multi-step Retrieval-Augmented Generation (RAG) with deterministic citation grounding, autonomous tool-calling agents (MCP), local/air-gapped LLM fine-tuning via QLoRA (PyTorch), computer vision, and evaluation/guardrail harnesses.
- Modeling, Simulation, Digital Twins & Tactical Training Systems (NAICS 541511 / 541715 / PSC 6910):** C++, C#, real-time 3D simulation, physics-grounded digital twins (DoDI 5000.97 alignment), AI Finite State Machines (FSMs) & autonomous behavior trees, wargaming, and interactive serious games for defense and emergency response training.
- Full-Stack, Mobile & Cloud Systems Engineering (NAICS 541511 / 518210):** End-to-end applications built in Python (FastAPI), TypeScript, React, Next.js, Flutter/Dart (Native iOS & Android), and PostgreSQL (pgvector + Row-Level Security). Delivered containerized (Docker) with Section 508 / WCAG 2.2 AA accessibility and NIST 800-53 / 800-171 security controls built in from day one.
- Scientific, Health & DoD Operations Analytics (NAICS 541519 / 541611 / 541990):** Biomedical and clinical research synthesis, epidemiological and vaccine/market demand forecasting, automated ETL/ELT pipelines, geospatial/sensor data fusion, and military manpower (PERSTAT), DTS auditing, and legal workflow modernization.

## VERIFIABLE PRODUCTION TRACK RECORD & PAST PERFORMANCE

- Biomedical & Clinical RAG Platform (Nootropic.ai):** Architected and deployed a live production AI SaaS platform indexing clinical and biomedical literature in PostgreSQL (pgvector) with strict Row-Level Security and deterministic JSON Schema validation to eliminate LLM hallucinations.
- Sovereign Local LLM Fine-Tuning (Paladin-1) & Agentic Matching (RemotePatriot.com):** Engineered a locally fine-tuned QLoRA Large Language Model capable of air-gapped deployment, and built an autonomous multi-agent platform matching disabled veterans to technical requirements.
- Cross-Platform Native Mobile Application (Mirror — Apple App Store & Google Play):** Shipped a production 60fps iOS/Android mobile application with AI analytics, offline-first relational data synchronization, and encrypted cloud backup.
- Enterprise AI Workflow Automation (VirtualZenAssistants.com):** Deployed custom AI agents, Microsoft 365/CRM pipelines, and full-stack client portals that reduced operational turnaround times by **60%** and increased conversion rates by **500%**.
- U.S. Marine Corps Battalion Manpower & Legal Operations (Camp Lejeune, NC — 2016–2023):** As a USMC Captain (MOS 0102 Manpower Officer & MOS 01L Legal Officer) at **8th Engineer Support Battalion (2d MLG)** and **1st Battalion, 10th Marines (2d MARDIV)**, directed administrative, manpower, and legal compliance for 1,200+ Marines; re-engineered workflow SOPs to cut issue resolution time by **80%** and official document error rates by **70%**.

## KEY DIFFERENTIATORS FOR CONTRACTING OFFICERS

- Proof-First Pre-Award Prototypes:** For federal solicitations, we deliver a working software slice, simulation, or reproducible data benchmark hosted at [paladinfront.com/eval/\[solicitation-id\]](https://paladinfront.com/eval/[solicitation-id]) alongside our quote so evaluators can audit working code before award.
- 100% Self-Performance Compliance (13 CFR § 125.6):** Because the Principal Engineer directly executes the architecture, coding, simulation, and data modeling, agencies receive 100% senior engineering output with zero pass-through risk on SDVOSB set-aside and sole-source awards.
- Quad-Domain Fluency (AI/Full-Stack + 3D Simulation/C++ + Microbiology + USMC Captain):** Uniquely qualified to serve as Principal Investigator across Defense/C4ISR & Wargaming (DoD, USMC TECOM, PEO STRI, Navy), Health/Biodefense (VA, HHS, CDC, NIH, DTRA), and Civilian IT modernization.
- Eastern NC Military Corridor Base:** Headquartered in **Wilmington, NC** with immediate on-site reach to **USACE Wilmington District, MCIEAST / Camp Lejeune, Fort Liberty / USASOC, and VA VISN 6.**