

Kenneth Renshaw

Tulsa / Yale, Oklahoma

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Executive Profile

Co-Founder, Chief Executive Officer (CEO), & Chief Science Officer (CSO)

Over 40 years of experience designing and optimizing safety-critical systems where failure is not an option. That is my game and how I play it.

My career has spanned from the early foundations of modern personal computing to deep-space exploration and advanced military defense architectures. I specialize in "bare-metal" computation, bridging the precise structural maps of biological neuroanatomy with high-efficiency silicon hardware. I speak VHDL and RISC-V assembly as fluently as Python and Bash. At Neurobotics, I architect the computational substrate powering the world's first Silicon-Based Artificial Life Forms (SBALF) and pure, deterministic Silicon-Based Utility Droids (S-BUD). By completely eliminating the unpredictable, non-auditable "black box" nature of generative LLMs from critical control paths, we provide mathematically verifiable, edge-native cognitive systems engineered for tactical, aerospace, and high-reliability operational environments.

A Legacy of Zero-Fail Engineering: * Aerospace & Defense: Contributed key engineering to TCAS II (the global commercial standard for mid-air collision avoidance) and redesigned radar warning systems for the F-14 Tomcat and EF-111A Raven. * Deep Space Avionics: Served as Senior Engineer Technician at Litton Industries, overseeing prototype bring-up, thermodynamic dissipation, and space-radiation-hardened error correction for Itek's ATAC16 spacecraft computer system deployed on the Galileo Space Probe. * Enterprise Scale: Five decades of distributed systems and DevOps architecture leadership across organizations including Oracle, Yahoo!, Sun Microsystems, and DoD-accredited global platforms.

Grounded by the principle *Esse Quam Videri*—To be, rather than to seem.

Core Competencies - Architecture

- **Hardware & Systems:** Bit-Slice Architecture, Neuromorphic Engineering, FPGA, RISC-V, Distributed and Embedded Systems Engineering, Hyperdimensional Computing
- **Enterprise Cloud & DevOps:** AWS, Kubernetes, Docker, Jenkins, Terraform, CloudFormation, Ansible, CI/CD Ecosystems.

- **Languages & Methodologies:** Python, Ansible, Infrastructure as Code, distributed neuromorphic systems, advanced CI/CD and integration, Automation and Auditing of the Software Life Cycle, C, C++, Agile Application Development, Computational and Design.

Foundational Science & Theoretical Physics

Renshaw Theory (Version 0.4)

- Developed a cosmological framework integrating M-Theory, Penrose's Conformal Cyclic Cosmology, and the Plebanski mechanism into a unified account of physical reality.
- Postulated that the constants of nature including the speed of light ' c ' and Planck's constant ' $\hbar$ ', are geometric outputs of cosmic cobordism cycles, and posits the "Logos" as the initial boundary condition of the universe.

"Logos" in greek means the creative agent that uttered "Fiat Lux!" - "Light, BE!" and out of nothing came everything that physically is.

It is fitting symbolism, and it stands.

Professional Experience

Neurobotics | Yale, OK Co-Founder, CEO, & Chief Science Officer (CSO) | March 2026 – Present Architecting the computational substrate powering the world's first Silicon-Based Artificial Life Forms (SBALF) and pure, deterministic Silicon-Based Utility Droids (S-BUD).

- **Neuromorphic Substrate:** Designed and executed a biologically faithful computational substrate across 193 Python modules, satisfying 11 of the 12 NASA criteria for life.
- **Embodiment Engineering:** Authored the Hardware-Enforced Sterile Instantiation Protocol (HESIP), utilizing NVIDIA Omniverse for zero-risk cerebellar motor training before physical deployment.
- **The Galvanic Barrier:** Engineered an epistemological sensory filter achieving a 135x reduction in damping, isolating the sensorimotor bus from analog hardware noise.
- **System Resiliency:** Authored the Syncope Protocol utilizing ZFS Engram Journaling, ensuring sub-second experiential continuity across catastrophic hardware failures.
- **Codebase Forking (NBPR-2026-007):** Split the platform into a 100% deterministic, zero-LLM S-BUD stream for defense drone applications and a hybrid SBALF stream utilizing a hardware-enforced FPGA veto core.

Teleflora | *Oklahoma Senior System Engineer* | *July 2024 – April 2026*

Ryder System, Inc. | *Oklahoma Senior DevOps Engineer* | *March 2024 – June 2024*

- Enhanced CI/CD processes embracing automation and Infrastructure-as-Code (IaC) utilizing GitLab and Azure DevOps.

PennyMac Loan Services, LLC | *Yale, OK Senior DevOps Engineer* | *June 2021 – November 2023*

- Managed modern infrastructure and automation within an AWS environment for a highly regulated business sector.
- Deployed AWS CloudFormation Python-templated stacks via GitLab pipelines and Windows Server instances managed with Chef via TFS/Azure DevOps.
- Implemented serverless topologies using AWS Lambda, SQS, and Event Bus architectures.

Fox Rent A Car | *Tulsa, OK DevOps* | *August 2020 – May 2021*

CivicActions | *Tulsa, OK DevOps Engineer* | *May 2019 – March 2020*

- **State of California (Cammis Project):** Terraformed Infrastructure-as-Code in AWS/EKS for an upgraded medical information system utilizing Kubernetes and CircleCI CI/CD.
- **DoD GlobalNET Project:** Rearchitected the DoD accredited collaboration platform (18 websites, 60,000+ users) deploying CloudFormation and Ansible Infrastructure-as-Code in AWS GovCloud.

Agylstor | *San Francisco Bay Area Senior DevOps Engineer* | *February 2019 – May 2019*

- Designed and implemented an end-to-end CI/CD Pipeline in AWS for advanced storage infrastructure virtualization.

DataStax | *Santa Clara, CA Senior Release Engineer / DevOps* | *May 2018 – January 2019*

- Principal architect for a next-generation CI/CD system built on Kubernetes, Rancher, Jenkins, Docker, Artifactory, and Ansible for DSE DataStax Enterprise (Apache Cassandra NoSQL ecosystem).

SnapRoute, Inc. | *Santa Clara, CA DevOps / Build and Release* | *April 2017 – May 2018*

- Implemented build and release architecture for a Network Operating System based on distributed microservice containers running via Docker, Golang, and Kubernetes.

SpiderCloud Wireless, Inc. | *Milpitas, CA DevOps / Build and Release* | *January 2012 – February 2017*

- Senior Engineering Staff managing tools/workflows via Source Code, Bug Tracking, and CI methodologies utilizing Atlassian Bamboo, JIRA, SVN, GIT, and Perforce.
- Handled partner/vendor code drops, escrow materials, and conformance audits (Current ISO 9001 Certification).

Yahoo! Inc. | *Sunnyvale, CA DevOps / Build and Release* | *September 2008 – June 2011*

- Designed release engineering infrastructure for high-traffic global properties (Shopping, Travel, Deals, Global Maps).
- Developed CI, regression, and deployment tools via Hudson/Jenkins for full multi-layered builds and production staging.

ONStor, Inc. | *Campbell, CA DevOps / Build and Release* | *November 2002 – February 2008*

- Automated builds and regression testing using Perforce, Linux/UNIX GNU, Visual Studio, and custom Bash/Perl scripting.

SAN Valley Systems, Inc. | *Campbell, CA DevOps / Build and Release* | *January 2001 – August 2002*

- Managed source code, integration builds, and the server farm for hardware engineering groups executing large-scale IC simulations.

Oracle | *Redwood Shores, CA DevOps / Build and Release* | *September 1998 – January 2001*

- Release engineer for the Internet File System project.
- Managed Perforce SCCS, Java, and C-based build systems, coordinating deployments among up to 10,000 engineers.

Legato Systems, Inc. | *Palo Alto, CA* **DevOps / Build and Release** | *January 1997 – January 1998*

Sun Micro Systems Inc. | *Milpitas, CA* **Senior Engineering Technician** | *January 1987 – January 1989*

- Pioneer technician trained on the SPARCStation series, repairing and integrating full-sized rack servers into manufacturing pipelines.

Litton Industries / Bell Aerospace | *Sunnyvale / Belmont, CA* **Senior Engineering Technician** | *January 1982 – January 1987*

- **Deep Space Avionics:** Led prototype, bring-up, and burn-in for ATAC16 spacecraft computer systems deployed on the Galileo Space Probe. Engineered zero-fail redundancy using 3-voting Bit-Slice processors (Triple Modular Redundancy) and bit-slice floating-point math coprocessors.
- **Military & Commercial Aerospace:** Redesigned radar warning systems for the F-14 Tomcat and EF-111A Raven fighter jets using PAL and gate array technologies. This groundwork directly led to the TCAS II Threat Collision and Avoidance System now ubiquitous on all modern commercial aircraft.

The Bare-Metal Origins

- **Age 10:** Manually mapped neural circuits and robotic schematics on cardboard.
- **Age 12:** Mastered bare-metal programming on an IMSAI 8080 with 8K of BASIC, forging a lifelong discipline of bit-level optimization.
- **Early Mentorship:** Enrolled in a Gifted Students Program, receiving personal technical encouragement from Steve Wozniak.
- **Age 16:** Mastered Brodmann area neural maps as an Anatomy and Physiology tutor, which currently serve as the structural blueprint for SBALF cognitive partitioning.
- **Age 17:** Recruited directly into a major government research facility based on hand-drawn neural schematics.

Certifications & Personal Endeavors

- **Certifications:** Oracle Database Administration I & II , ISO 9001:2015.
- **Ministry & Outreach:** Ordained Christian Minister and technical mind/guitarist for the Ravenshaw global music ministry.