

William Paul Herald

COMPUTER SCIENTIST · TECHNOLOGY LEADER · INDEPENDENT OPEN-SOURCE BUILDER

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More than four decades of software and systems experience, spanning programming, databases, quality assurance, infrastructure, cybersecurity, management, and independent product development. Current work focuses on local-first AI, agent workflows, RAG/GraphRAG, human oversight, and making powerful language models useful on ordinary consumer hardware.

40+ years building and improving software and systems	13 merged Colibri pull requests as of Aug. 25, 2026	v0.1.1 latest Personal Life OS Core public release	366 focused public-core release-verification tests
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CURRENT INDEPENDENT WORK

Personal Life Operating System

A local-first, human-governed environment that brings AI agents, retrieval, knowledge graphs, automation, and personal information into one practical system. The work emphasizes privacy, evidence, audit trails, rollback, and explicit human approval for consequential actions.

The private system remains private. **Personal Life OS Core** shares a smaller, sanitized, MIT-licensed foundation so its engineering principles can be inspected and reused without exposing personal information or private infrastructure.

SELECTED PUBLIC PROOF

- **Personal Life OS Core:** public MIT-licensed repository, releases, tests, documentation, and operational patterns.
- **Colibri:** 13 merged upstream pull requests as of August 25, 2026.
- **Long-form writing:** articles on local-first AI, agent governance, auditability, and the Personal Life Operating System.
- **Independent publishing:** Android application and an earlier eBook on residential solar power.

HOW I WORK

Practical systems, controlled risk. Build useful capabilities, test them at clear boundaries, preserve evidence, require approval where consequences matter, and make rollback possible.

CAPABILITIES

Local-first AI

Agent workflows

RAG / GraphRAG

Knowledge graphs

Software quality

Database design

SQL

PHP / Laravel

Vue.js

C# / ASP.NET

Visual FoxPro

Linux

Infrastructure

Cybersecurity

Technical writing

Technology leadership

CAREER THROUGH-LINE

Hands-on programming grew into database architecture, packaged and custom applications, software testing and quality assurance, infrastructure, security standards, staff leadership, and the operation of long-lived production systems.

EDUCATION

Lycoming College

B.A., Computer Science · German minor · 1987

LINKS

Public core

github.com/bherald/personal-life-os-core

Public profile

wphc.us

Experience and perspective

PROFESSIONAL EXPERIENCE

- Director of Technology · Diversified Technology Corp.**
2020 – Present
Technology leadership informed by decades of software development, quality assurance, database, infrastructure, and operational experience.
- Owner and Independent Software Builder · WPH Consulting**
1990 – Present
Created packaged and custom database software, business and nonprofit applications, an Android app, and independent publishing projects. Current independent work centers on local-first AI and the Personal Life Operating System.
- Technical Support and Software Quality Assurance Manager · CSIU #16**
1990 – 2020
Thirty-year career in technical support, software quality assurance, and the operation and improvement of systems serving K-12 organizations.
- Manager, Computer Sales and Custom Programming · North Central Digital Systems**
1987 – 1990
Managed computer sales and custom programming work during the transition from early microcomputer database systems to multi-user business applications.
- Early programming roles**
1983 – 1987
Programming internship at Tetley Tea Corp.; BASIC programming for Broadt Computers; COBOL programming and factory work at Masonite Corp.

SELECTED INDEPENDENT MILESTONES

- Built software to help families locate college financial resources through a third-party mainframe service.
- Programmed, packaged, and sold DOS database applications for baseball-card, craft-pattern, and recipe collections.
- Developed school-food-service recipe, nutritional-analysis, and menu software using USDA data.
- Created systems for Red Cross blood-donation tracking and computerized live-auction operations.
- Published the Android application *LetMeAlone* and the eBook *Install Solar at Home and Save Money*.

TECHNOLOGY ARC

- Early systems**
Apple II BASIC, FORTRAN, COBOL, CP/M, dBase
- Business applications**
FoxPro, Visual FoxPro, custom databases, packaged software, networking
- Web and data**
SQL Server, IIS, C#, ASP.NET, Linux, PHP, MySQL, Laravel, Vue.js
- Current systems**
Local AI, agents, RAG/GraphRAG, knowledge graphs, automation, consumer-hardware LLM infrastructure

LEADERSHIP AND QUALITY

- Software testing and quality assurance
- Technical support and systems operations
- Continuous improvement and auditing
- Database architecture and administration
- NIST 800-series security awareness
- Technical communication and staff leadership

SERVICE AND RECOGNITION

- Eagle Scout, Boy Scouts of America, 1982
- Milton Optimist Club Community Service Award, 1983
- Walter McIver Award, Lycoming College, 1987
- Former Scoutmaster, BSA Troop 25
- Retired volunteer firefighter, Bloomsburg Fire Department

CURRENT INTERESTS

Local-first AI · Human-governed agents · Retrieval and knowledge graphs · Consumer-hardware language models · Legacy-system modernization · Software quality · Technology history

Independent public work

Personal Life OS Core is available under the MIT License at github.com/bherald/personal-life-os-core.