

# Gareth Harris

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**"The only source of knowledge is experience." -- Albert Einstein**

Starting about age 8 in my father's machine shop after WWII, I swept floors,  
Then built machines by learning from the experience of others.

From there I went to physics and then computing.

Now I am the experienced one,

no longer building machines of metal,

but instead now building *invisible machines* - *software inside computers* -

machines that gather, cut and assemble data into information

just as my father's machine shop assembled metal long ago.

**I create advanced distributed systems using simple available technology**

**AND 50+ years of experience.**

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## Lessons I have learned:

1. ***Simpler is better.***
  2. Use the simplest solution - not the most complex.
  3. If a feature is not necessary - eliminate it.
  4. Do the minimum to get the job done - not the maximum.
  5. **The most profitable feature of any product is quality.**
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## Some Accomplishments:

1. Database Management - Created language parsing for the **first command driven database system.**
  2. Graphics - Created driver for **first high speed graphics** plotter attached directly to supercomputer
  3. Spreadsheets - Created the **first interactive spreadsheet** for on-line users on the first supercomputer.
  4. Mainframe Remote Job Entry - Created the **first RJE's using minicomputers**, card readers & printers.
  5. Networking - Designed **first distributed controls for US Navy UNIX** sonar testing instrument.
  6. Operating Systems - **Created UNIX clones - twice** - for a manufacturer and manufactured my own.
  7. Manufacturing - Created the **first manufacturing management database** for shop floor control.
  8. Warehousing - Created **first putaway planning system** that is ready before the truck reaches the dock.
  9. International Shipping - Created **first web-based customs cargo tracking** for ships while on the high seas
  10. Process Control - Designed **parallel synchronous business control system** - twice - for large corporations
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## Major Milestones:

- 1 - CEO & Founder: Cyb Systems - UNIX systems microcomputer manufacturer, Austin, Texas
- 2 - Creator & Manager: Austin Development Center - Computer Automation, Inc., Austin, Texas
- 3 - Senior Systems Analyst and Programmer: University of Texas and Navy Research Labs, Austin, Texas
- 4 - Physicist: Lockheed Georgia Research Laboratory, Marietta, Georgia
- 5 - Designer, Tool & Die Maker, Floor Sweeper: Harris Machine and Tool Works, Marietta, Georgia

## ⇒ History Details:

2007-present: Teaching, Management Consulting & Private product development

- Computer Science Research & Writing books
- Consolidating past designs into distributed and mobile control products

2005-2006: National Distribution Center: gsi/Linens n Things - CORPORATE WORKFLOW PLANNING

- Optimized large warehouse by planning putaway of truck contents, before arrival !

2004: Wheel Factory: Hayes Wheels - CORPORATE PLANNING & FACTORY FLOOR CONTROL

- Developed Automated Planning/Coordinating system for entire factory floor and CNC machines.

2000-2003: Science: NRAO - National Radio Astronomy Observatory: - LARGE RADIO TELESCOPE CONTROLS

- Control software architecture for new large telescope in Chile - international project

1998: TELEPHONE: - BELL SOUTH - WEB DATABASE INVENTORY CONTROL

- Provide real-time online tracking over 9 states using BellSouth internal network, recovered many \$\$

1997: CUSTOMS BROKER/FREIGHT FORWARDER: ROGERS & BROWN - INTERNATIONAL WEB ACCESS

- Constructed secure worldwide shipboard freight tracking system through internet

1996: EDUCATION: BERRY COLLEGE BUSINESS SCHOOL - REDESIGN & STABILIZE CAMPUS NETWORK

- Stabilized chaotic campus network environment, added UNIX Internet Services for Faculty and Students

1995: GROCERY DISTRIBUTION: IBM/ISSC/SPARTAN STORES - LEGACY LOGISTICS REPLACEMENT

- Integrated Order Fulfillment, Supply Chain Replenishment and Warehouse Logistics

1994: COMMODITY INDUSTRY: SAVANNAH FOODS - LEGACY REPLACEMENT & NETWORK

- Created policy independent designs that are easily altered when corporate and procedural changes arose.

1992: TRANSPORTATION: COURIER DISPATCH - NATIONWIDE PRIVATE NETWORK

- Designed and deployed one of the first Nationwide Frame Relay Networks

1987-1991: PARISH PRIEST: CEDARTOWN, GA, EPISCOPAL DIOCESE OF ATLANTA - Helping out

1986-1987: MEDICAL: Medical Office on UNIX - Automated Insurance & Medicare Processing

1984-1985: MANUFACTURING: Real Time Floor Tracking for control, scheduling, cost tracking on IBM PC

1981: CYB SYSTEMS, 1981-1983, FOUNDER AND CEO: (Later bought by Control Data and others)

- Designed and manufactured UNIX microcomputer [SUN license based]
- Created a manufacturing company, initial product, pilot models, recruited staff, showed at conference,
- Delivered first machines from show floor in first year.

1977: COMPUTER AUTOMATION, 1977-1980, RESEARCH & DEVELOPMENT MANAGER:

- Creator of Austin Development Center for Computer Automation - minicomputer manufacturer
- Designed & produced the UNIX/MULTICS-like operating system PROTOS with hardware

1968: THE UNIVERSITY OF TEXAS, 1968-1976, SENIOR SYSTEMS ANALYST PROGRAMMER:

- At the Navy Applied Research Laboratory:
  - Put Navy Sonar Project on UNIX in 1976 including custom network communications
- At the Computation Center:
  - Produced system portions of the first successful database management system - RFMS
  - Produced network communications for remote batch terminals
  - Implemented both discrete and continuous large scale simulation, and graphics packages.

1965: LOCKHEED GA, 1965-1967, PHYSICIST:

- Created digital and analog electronics and laboratory apparatus for experimental flight avionics.
- Developed instrumentation for wide line NMR [Nuclear Magnetic Resonance] of solids
- Researched solid state gamma ray detectors for fuel gaging.

PREHISTORIC: HARRIS MACHINE & TOOL WORKS -- FAMILY BUSINESS:

- Created and manufactured high precision molds for manufacturing
- Created and manufactured automatic machinery for textile and aerospace industries
- Drove bulldozers, trucks, swept floors, etc. ...

