

WAYNE DAWSON – Software Engineer

"I don't make it look pretty, *I make it work.*"

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With an MS in Electrical Engineering and hence a thorough understanding of computers from the ground up, I have worked at many levels of software development over my three decades of professional computer experience. I also have some experience in project management, and good communication skills.

HIGHLIGHTS

- **Blockchain programming**
- **C++: the foundation for much of my OOP knowledge**
- **Java: I have taught multiple levels of Java courses**
- **LAMP: much of my work has involved Linux, Apache, MySQL, and PHP**
- **I have taught several programming languages, including C/C++, C# and Java**
- **stored procedures**
- **HTML/CSS/JavaScript: of course**
- **Master of Science in Electrical Engineering with minor in Artificial Intelligence**

Additional Technologies:

- other SQL: including PostgreSQL, MS SQL Server, and Oracle
- also some experience in developing C# .NET applications

EMPLOYMENT HISTORY

ECPI University (Aug 2015 - present)

EET and CIS Adjunct

Teach day and evening courses in Electronics Engineering Technology and Computer Information Systems. Courses include:

EET: Digital Systems I and II, Electric Circuits I and II, Semiconductor Devices, Electronic Systems Applications, Industrial Applications

CIS: Object Oriented Programming with C++, Software Logic and Design, Intermediate Database, Web Interface Design (HTML/CSS), Web Client Scripting (Javascript), Programming I (C), Cloud Computing Concepts, Computer Applications, Introduction to Operating Systems, Object Oriented Programming I and II (Java)

Horizen (Aug 2017 – Apr 2018)

Senior Developer (Core Team)

Involved with multiple aspects of the Horizen system, including hardware wallet integration, Secure Node deployment testing, code reviews, and new technology research. No longer working on core team, but still involved with Horizen, mining and running secure nodes.

INDEPENDENT CONTRACTOR (Mar 2004 - present)

Web Application Developer

Largest project involves developing and running the software platform and servers for c-gold.com and c-coin.com, two services of Commerce Gold. These are both LAMP projects involving fully custom software design and coding, security/anti-hacker measures, and selection, setup and maintenance/administration of two dedicated servers. Other projects involved developing a C# .NET application for significantly less than the client had been paying a large custom software house.

BONSAI SOFTWARE (Jan 2003 - Dec 2003)

Database and Web Application Developer

For an offshore services provider, designed a complex PostgreSQL database running under Apache/Linux. Utilized the following features of PostgreSQL: PL/pgSQL functions, triggers, views, inheritance.

Also developed an online sales site that involved PHP scripting to retrieve JavaScript code and dynamically modify it before presenting it to the user's browser.

INDEPENDENT CONTRACTOR (Jan 2002 - Dec 2002)

Web/Database Programmer

Developed various websites. Performed my own marketing and client interfacing, as well as PHP and HTML/JavaScript development. Hired subcontractor for graphics work.

FOLDERSAFE, INC. (Jun 2001 - Dec 2001)

Head of Software Development

Worked as a contractor, developing encryption software under Windows using Visual C++. Software required a database to track status of encrypted files. The software runs under Windows 95, 98, 2000 and ME, and is integrated with the Windows shell. Supervised staff in development of project design documents and GUI code.

BONSAI SOFTWARE (Feb 2001 - May 2001)

Web/Database Programmer

Worked as a sole proprietor, developing software for a client in Dominica. Wrote all functional code for v1.0 of a gold based online payment system called 3PPay. Used HTML, Javascript, PHP, and PostgreSQL, running Apache webserver under Linux. Performed all necessary work including software design and coding, and setting up of network for development/testing. Received bonus from client for delivering software in a timely manner.

GOLD & SILVER RESERVE (Apr 2000 - Jan 2001)

Web/Database Programmer

Worked as a subcontractor. Developed software under WindowsNT for IIS and SQL Server, including SQL stored procedures, and ATL/COM. Software was for G&SR's OmniPay service, which exchanges between e-gold and USD, as well as other currencies.

THE HIPAGE COMPANY (Jun 1997 - Mar 2000)

Systems Programmer

Developed software under UniVerse DBMS (running under AIX on RS6000), including database manipulation and report programs, Electronic Data Interchange and other communication software. Also served as Webmaster, making previously written HTML and graphics more efficient and faster to download.

TIDEWATER COMMUNITY COLLEGE (Sep 1997 - Mar 2000)

Assistant Professor

Developed and taught basic to advanced courses, including object oriented programming (C++), introductory and intermediate computer programming (C/C++), web page development (HTML and Javascript), and Using Windows and Microsoft Office.

PRIMERICA FINANCIAL SERVICES (Feb 1995 - Aug 1997)

District Leader

Worked as sales representative and manager to develop people and leadership skills, focusing on understanding and meeting clients' needs, and recognizing and developing skills in others. Sold life insurance, property and casualty insurance, mutual funds and debt consolidation loans.

NAVAL UNDERSEA WARFARE CENTER (Feb 1990 - Jan 1995)

Lead Electronic Engineer

Lead for Digital Audio Special Sounds Subsystem. Worked closely with two contractors (a computer programmer and computer hardware assembler), procured parts and equipment and coordinated documentation efforts. Also served as software maintenance expert for Weapon Launch System Operator Trainer (WLSOT). Examined Ada code, learned system, made software changes when needed by training sites.

Made and Implemented all decisions regarding selection of hardware, approval of documentation, and design of software for DASSS

Controlled design and wrote half the software code, including all Assembly Language, consisting of approximately 10,000 lines of Ada. System used commercial off-the-shelf (COTS) hardware
Developed a terminal emulation program which communicated via NTDS interface to allow DASSS computer to be used while the trainer was in maintenance mode. Otherwise, DASSS would not have been utilized in this mode

Designed and Developed one DASSS Engineering Development Model and 12 delivered units for shore based training facilities. At an average cost of \$23,500 per unit, replaced a \$450,000 system with a plug compatible PC based system that stores the sound data on computer hard disk instead of a physical tape system. Saved taxpayers, government and the U.S. Navy over \$5 million by lowering system, maintenance and power consumption costs

UTILITY TRANSLATION SERVICES, INC. (May 1987 - Aug 1988)

Associate Software Engineer

Designed and coded programs for the power industry, including mathematical graphing routine, interrupt driven communication port driver, software to communicate with eight different recorder devices and an unsupervised automatic file transfer system.

Translated routines of UTS' primary software product, which was originally written in Basic, to Fortran and Assembly to meet needs of next generation of the software product.

Accomplished task in a timely fashion which resulted in added efficiency of system, as well as a personal pay raise of 50 percent from \$10 to \$15 per hour.

Wrote software to communicate in various protocols with different recorder devices that gather information. This allowed flexibility for Power companies and different software to communicate with all major vendors' recorders to bring the data onto one computer platform.

Created and Implemented a system that exchanged data at night when the computers were not normally used to ensure that customer, Duke Power, acquired accurate inventory information on a daily basis for their three labs.

MANPOWER/WALTER KIDDE (Summer 1986)

Electronics Inspector

Conducted 100% test and inspection of Gemini Fire Alarm & Suppression Control Systems.

Doubled quantity of systems tested to twenty per day.

NORTHERN TELECOM (Summer 1985)

Student Engineer

Responsible for the installation and modification of DMS-100 telephone switching equipment in Reliability Test Module. Analyzed test results and recommended actions to improve equipment.

Wrote memos recommending that an open relay be replaced with a hermetically sealed relay to reduce unsatisfactory failure rate.

NORTH CAROLINA STATE UNIVERSITY (Oct 1983 - Apr 1987)

Computer Operator

Responsible for ensuring continued operation of SageIV Microcomputers and Data General MV/8000 for students' use in completing lab assignments.

EDUCATION

M.S. Electrical Engineering, 1990

North Carolina State University - Raleigh, NC

Minor in Artificial Intelligence

Member of Eta Kappa Nu (EE honor society)

B.S. Electrical Engineering, 1986

North Carolina State University - Raleigh, NC