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Objectives

Use symmetry and implicit patterns to enforce clear [resource](#) contracts.
Minimize [code](#) size and complexity. Eliminate redundance. Orthogonalize.
Use [pass-through design](#) to simplify [automation](#) and reduce maintenance.
Create [tools](#) to let [users](#) easily [make](#) and alter the software they [want](#).

Experience

May/2015 - Present EchoStar-Dish-SlingTV

Triage and repair crashes in their overly-complex C++/lua [video player](#).
[Solve](#) problems with [resource locking](#) and [use](#) of the in-house scheduler.

Dec/2013 - Nov/2015 RackWare

Extend, solidify and simplify file-based [imaging](#) suite using C++, Batch, Bash.
Script the build, [package](#), verify, [install](#), test and [report](#) using git, Jenkins.
[Automate](#) VM lifecycle management on vSphere, KVM, XEN through virsh and others.

Oct/2008 - Oct/2013 StorageCraft

Write [caching](#) VHD and VHDX plugins in [Object-Oriented-C](#) on [Windows](#), [Linux](#), OS X.
Extend [cross-platform](#), [block-based imaging](#) suite using [Emacs Lisp](#), OO-C and C++.
Integrate VMware VDDK libraries for VMDK and ESXi targets using C++ and REST.
Write skeleton snapshot driver for HFS+ on Mac OS X using C and Xcode.
[Automate](#) build system to compile, [sign](#), [package](#), verify and [report](#).
[Develop](#) simple C [framework](#) to overcome [Windows installer](#) limitations.

Aug/2005 - Oct/2008 Social Sufficiency Coalition

Begin basic [Linux](#) application [development](#) with [Emacs](#), gcc, gdb.
Begin basic Android application [development](#) with [Emacs](#), Java.
[Design](#) [ecology](#) simulation to compare [economic model](#) efficiencies.
[Develop](#) [autolink](#) website with WYSIWYG "[pass through](#)" markup using XHTML and CSS.
[Design](#) JIT [package manager](#) for 'GNUunix' to [install](#) and execute advertised features.
Write [Intra Owner Trade Agreement](#) as a [GNU GPL](#) for the [physical](#) realm.
[Used](#) C, C++, XHTML, CSS, JavaScript, BASH, [Emacs Lisp](#), gcc, gdb, Java.

Aug/2000-Aug/2005 Altiris

Write thin library to [automate resource](#) management and simplify [Win32 API](#).
[Design](#) "[pass through](#)" interfaces to increase performance and decrease maintenance.
Extend, debug and repair [Windows device](#) drivers [used](#) to read/write hardware settings.
Write W32 [Service](#) to remotely [control](#) and [report](#) computer settings.
Write simple HTTP and IMAP clients to send commands, and parse results.
Write self-extracting [installer](#) conforming to "Add/Remove Programs" guidelines.
Write dynamic [virtual](#) file system for incremental backup to removable [media](#).
Write some simple stored procedures against MSSQL.
[Used](#) C, C++, XHTML, DDK, Visual Studio, MSSQL.

Aug/1999-Aug/2000 NovaRad

Integrate DICOM [transport](#) and JPEG2k compression into [medical imaging](#) client.
[Design](#) predictive [caching](#) SCSI [robotic](#) tape archiver.
[Used](#) C, C++, TCP/IP, Visual Studio.

Jul/1997-Aug/1999 NetSchools

[Develop](#) UDP/IP [packet](#) generator and simple sniffer for IR [network](#).
[Develop](#) [network](#) logon provider using SSPI and Blowfish encryption.
Help [develop](#) write-[protection](#) for [Windows 9x](#) filesystem and registry.
Extend compressing RAM paging driver and keyboard filter VxD.
[Used](#) C, C++, TCP/IP, DDK, Visual Studio.

Jun/1996-Jun/1997 BioVision Motion Capture

[Develop](#) Flex/Bison regexps, BNFs and glue [code](#) to [import](#) motion capture data.
[Develop](#) other [tools](#) to simplify and [automate](#) motion data [transforms](#).
[Use](#) matrix mathematics and spline approximations to smooth sparse data.
[Used](#) C, C++, Visual Studio.

Feb/1996-Jul/1996 IBM Eduquest

Track and fix application bugs in educational software.

Help write [printer](#) driver to [translate](#) between Postscript, PCL, PDDP.
Used C, C++, TCP/IP, Visual Studio.

Jan/1995-Dec/1998 Brigham Young University

Independent C/C++ tutor.

Teacher's Aid for "Discrete Structures and Combinatorial Mathematics" I and II.

Education

Jan/1994-Dec/1998 Brigham Young University

B.S. in Computer Science