

· Experience

Chess Yoga (www.chessyoga.org), Volunteer Webmaster, 2004-present

Personal hobbyist system administration of UNIX-like operating systems on personal hardware including installation and dual boot of FreeBSD on IDE laptop internal bay bare bones hard drives, dual boot, and installation and dual boot of Fedora, Ubuntu, Gentoo, and CentOS Linux distributions on SATA internal bay bare bones hard drive, 2004-present

San Leandro Unified School District, Substitute teacher 2011-2012

Association for Computing Machinery (ACM) SFSU, Tutor, 2010

Oakland Unified School District, Substitute teacher 2006-2007

SFSU, Disability Programs & Resource Center Student Assistant and Tutor, 2004-2005

University of California, San Francisco, Dept. of Ophthalmology

Research Assistant: RIA; Western Blot; $^{86}\text{Rb}^+$ & ^{125}I radioisotope cell assays (uptake and efflux); SDS-PAGE; pharmacological investigations including adrenergic (isoproterenol, atenolol, propranolol, betaxolol, ICI-118-551, etc.), dopaminergic, protein phosphatase (PP1), chloride channel (DIDS), standard procedure ouabain to remove sodium pump contribution, occasional bumetanide (furosemide) to determine Na^+ , K^+ , 2Cl^- , cotransport contribution, 2nd messenger intervention including forskolin stimulation of cAMP and an inhibitor called H-89 which reversed this stimulation by blocking PKA, also investigated SAPK, PKC, and natriuretic peptide involvement; pH controlled solution formulation; sterile technique; cell line maintenance & unfreezing; inventory management; 1994-1995, 2000-2003

San Francisco Unified School District, Substitute teacher 2000-2001

Monteagle Medical Center, Medical Office Assistant, San Francisco, CA 1998-1999

Acacia Biosystems, Inc., Automation Assistant (robotics), Richmond, CA 1998

USCA Student Cooperative, Minutes Secretary and AdCom Council Member, Berkeley, CA 1990-1994

Biocircuits Corporation, Technical Administrator, Burlingame, CA 1992

Waisman Center, UW Hospital, Laboratory Assistant including sterile technique. Madison, WI 1989

Regent Food Market, Assistant Inventory Manager, Madison, WI 1986-1988

Wendy's Restaurant, Closing Crew, Milwaukee, WI 1984-1985

· Biotechnology Skills

GLP: PCR, GC-MS, HPLC, MALDI-TOF, 2D-PAGE, radioisotope, cell culture, Western Blot, RIA, immunoprecipitation, UV/Bradford, pH, SDS-PAGE, auxotroph.

Bioinformatics: NCBI, PubMed, SwissProt/UniProt, Bioconductor.

Robotics: Hamilton and Beckman Multimek 96 pin pipette automation, Carl Creative Plate Stacker.

· Computer Skills

DB/Sprdsht.: Oracle, MS Access, MatLab, SQL, Quanta, QL, Excel, MySQL, Lotus, PL/SQL, UniProt.

Statistics: SigmaPlot, SAS, STATA, SPSS, R.

Web: HTML, CSS, XML, Perl/CPAN, PHP, JavaScript, CGI, JAVA applet.

Multimedia: Flash, GIMP, Photoshop, OpenGL, openAL, Korel Draw.

Net: Pine, LAN, cc: email, (s)FTP, AppleTalk, NT drive mapping.

OOP/PL/Script: VB, JAVA, C/C++, ksh, bash, FORTRAN, Pascal, sed, awk, LISP, OPS-5, MFC.

OS/asm: X, MS Windows, FreeBSD, CentOS, Gentoo, Fedora, Ubuntu, MacOS, EVAX, UNIX (AIX, HPUX), MS-DOS, MIPS, VAX11/780, HP.

Kayven Riese (continued)

· Education

University of California at Santa Cruz - Extension 2002, 2012

DNA Microarray Data Analysis using R and Bioconductor: CEL, GAL, SPOT, DAT data formats, GEO data repository utilization.

MS Windows Win32 System Programming: File I/O, Memory Management, Synchronization, Dynamic Link Libraries (DLLs), Thread Local Storage, Pipes, MailSlots.

San Francisco State University (SFSU), Dept. of Computer Science, Master's Degree, August 2011

Thesis: Created proteomic visualization system using UniProt Consortium bioinformatic knowledgebase for input, and Cairo Graphics for output. Download code, necessary data files & documentation from kayve.net/promog.tgz (UNIX extract with "tar vxzf promog.tgz").

Performance comparisons: Linux (Gentoo, Ubuntu, vs. CentOS); Perl vs. C.

Installed loadmap on personal CentOS to obtain data for Physical Oceanography MatLab work.

Software Engineering: Web Design using HTML forms, PHP, and JavaScript.

Graphics Design: Used Flash story board composition, OpenGL, and OpenAL sound management.

Database Design: 1) MS Access, SQL, Java used to create ER diagrams; 2) large scale data pipeline.

Operating Systems: 1) real time C; 2) multiprogrammed performance analysis C versus Java.

University of California at Berkeley - Extension 1991-1993, 2001, 2008

Molecular Cell Biology (MCB): Neuroanatomy, histophysiology, physiology, phys. sim. lab., immunology, cell biology (Alberts text), Biochem., Biochem. lab.(Lineweaver-Burke, SDS-PAGE, Southern & Western blots, DNA & protein purification, affinity chromatography, PCR, ³²P_i assay.

SAS course: Exponential weighted average, macro variables, Kolmogorov-Smirnov test, Granger causality test, DEBUG Option, regression/correlation, annualized volatility, Ordinary Least Squares (OLS) Regression.

Fundamentals of COM/DCOM: IUnknown interface, GUIDs, CLSIDs, IIDs, DLL Server, COM Clients. Bioinformatics; OS (Java emulated); Machine Structures (SW).

City College of San Francisco, Computers and Information Systems 1998-2000, 2002-2003

Open/UNIX system administration qualifying sequence:

Java: applet/HTML; C++/MFC; Perl: OO Perl, DBI, GD::Graph, CGI.pm, Socket, URI hiding;

Linux sysadmin: run levels, umask, mount, useradd, /etc/fstab, kill, zombie proc;

DB: 1) Microcomputer (MS Access) 2) Network (Oracle – PL/SQL).

Also: GC-MS; HPLC; Physics with electromagnetism lab.

University of Southern California, Dept. of Physiology and Biophysics, Master's Degree, 1995-1997

Thesis: Statistical Analysis of SYNTAX metabolic simulator (SUN SPARC station, UNIX awk).

Results were published in FASEB Supplement (see Publications section below)

Biostatistics: ANOVA, non-parametric means test, Mantel-Haenszel, Spearman & Pearson regression.

Lab rotation: Immunoprecipitation of Insulin Receptor (IR) transduction factor IRS-1 & IP-3 kinase from rat hepatoma cell culture, revive frozen cells, split cells.

Cardiovascular Physics: EKG cycle (P/QRS/T), Cardiovascular control, electrophysiology, mechanics.

Neuroanatomical methods, neurotrophin NT-3, the minimal model (glucose tolerance/insulin resistance).

University of Wisconsin (UW) at Madison,

Dept. of Mathematics, Bachelor's Degree, 1989

Calculus for engineering: Linear Algebra; Ordinary Differential Equations (ODEs); Linear ODEs; Applied Analysis (including complex analysis of singularities).

Upper Division: Abstract Algebra; Combinatorics; Abstract Calculus; Math/Phil. Logic; Topology.

Dept. of Computer Science, Bachelor's Degree, 1989

Fundamentals: Data Structures(Pascal); Machine Language; Machine Organization.

Upper Division: 1) DBMS (QL, Quanta, C/UNIX); 2) OS (C/UNIX); 3) AI Chess (LISP, OPS-5)

Linear Programming: Simplex Method.

· **Publications**

Riese K.

Evidence-Derived Proteome-Wide Subcellular Location – A Basis Partitioning for Classification Systems. San Francisco State University Master's Thesis; (August 2011).

<http://kayve.net/promog.tgz>

Lehman TD, **Riese K**, Lehman NL, Jackson PK, and Crook RB.

Ubiquitination is involved in the regulation of Na-K-Cl Cotransporter (NKCC) turnover in pigmented ciliary epithelial cells.

Investigative Ophthalmology and Visual Science **48**: E-5541(2007). www.iovs.com

Riese K, Beyer AT, Lui GM, and Crook RB.

Dopaminergic D1 stimulation of Na⁺,K⁺,Cl⁻ cotransport in NPE cells: a role for multiple hormones. Investigative Ophthalmology and Visual Science **39**: 1444-52 (1998).

Riese K, Cohen DM, and Bergman RN.

Stochastic properties of metabolites are dependent upon their own concentrations and enzymatic rates but not upon those of other metabolites, as calculated by SYNTAX.

FASEB Supplement **11(3)**:A602, 3481 (February 1997).

Crook RB and **Riese K**.

Beta-adrenergic stimulation of Na⁺,K⁺,Cl⁻ cotransport in fetal nonpigmented ciliary epithelial cells.

Investigative Ophthalmology and Visual Science **37**:1047-1057 (1996).

Crook RB and **Riese K**.

Adrenergic and dopaminergic regulation of Na⁺,K⁺,Cl⁻ cotransport in human NPE cells.

Experimental Eye Research **63**:S24 (1996).

Crook RB and **Riese K**.

Protein phosphatases regulate Na⁺,K⁺,Cl⁻ cotransport in fetal human NPE cells.

Experimental Eye Research **63**:S178 (1996).

Crook RB and **Riese K**.

Protein phosphatases regulate Na⁺,K⁺,Cl⁻ cotransport in fetal human NPE cells.

Investigative Ophthalmology and Visual Science **37**:S439 (1996).

Riese K, Polansky JR, and Crook RB.

Adrenergic stimulation of Na⁺,K⁺,Cl⁻ cotransport in fetal NPE cells.

Investigative Ophthalmology and Visual Science **36**:S216 (1995).

· **Interests**

Guitar, chess, HO scale model railroading, maps, paleoclimatology.