

# ROB MUHLESTEIN

**IT INFRASTRUCTURE ENGINEER • SENIOR SOFTWARE DEVELOPER • MENTOR**

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Building community and facilitating communication, research, and learning through the focused application of technology.

## EXPERIENCE

**Founder • Mentor • CEO • Engineer • Developer**

May 2013 - Present

SkilStak, Inc. (Davidson, North Carolina, USA)

- Founded and self-funded corporation to help others learn tech skills
- Created SkilBots, unique instructional software framework in Go
- Maintained Linux host in cloud for terminal-based (Bash) learning
- Created app for managing SkilBux and passwords in Go and PostgreSQL
- Administered 100s of workstations running Linux, MacOS, and Windows
- Setup and maintained all network operations and cybersecurity

**Senior Software Developer**

July 2009 - February 2014

IBM Software Division (Tivoli) (Remote, USA)

- Coded and analyzed 600K lines of C++, Java, TCL, Perl, and Python
- Performed low-level, root cause analysis of core dumps
- Executed complex, multi-host testing with Python Fabric
- Created advanced system performance tests in C with concurrency
- Coded VMWare (ESXi) proxy integration inspectors for TEM (BigFix)
- Became fluent with vSphere API and Relevance (BigFix) language
- Developed over 100 TEM security compliance checks in POSIX shell
- Sized and delivered log rotation migration processes in shell
- Provided 3rd level support for IBM Tivoli Provisioning Manager
- Participated in and lead Agile SCRUM meetings

**Site Reliability Engineer • Senior Software Developer**

January 2000 - July 2009

IBM Global Services (Remote, USA)

- Developed high-volume, central, multi-threaded TCP/IP server
- Created custom GPG-based transport protocol used for 150K servers
- Contributed to core security compliance for 250 accounts
- Made universal, auto-updating UNIX/Linux endpoint in Perl
- Designed PostgreSQL code and data store accepting terabytes a week
- Spearheaded implementation of source management and package bundling
- Automated backup of wiki documentation and source tree

**Adjunct Instructor**

June 2011 - May 2013

Rowan Cabarrus Community College (Remote / Salisbury, North Carolina)

- Developed curriculum and videos for beginning web development course
- Instruct and mentor beginning web development course
- Guide Summer camp teens learning beginning game development

### **Instructor / Guide**

June 2011 - August 2011

My Aloha, Paddle Sports and Fitness (Lake Norman, North Carolina)

- Instructed clients in basic stand up paddle boarding
- Assist with marketing, promotion, and evangelism
- Organized local paddle boarding meetups

### **Tivoli Administrator**

October 2002 - July 2004

IBM Global Services (Remote)

- Managed Tivoli endpoint health achieving 99.99% in first year
- Developed web-based ManageNow ticket system for 20% efficiency gain
- Lead production Tivoli Framework installations and upgrades
- Created numerous administrative tools and commands

### **Cofounder / Developer**

July 2009 - May 2010

EDTECH Retreat, LLC (Remote, Second Life Virtual Worlds Platform)

- Founded EDTECH Retreat Community and developed EDTECH Retreat Island
- Provided training and educational "playground" for NCTIES 2010
- Lead several school district skills training workshops
- One of a hundred (from millions) chosen by Linden Labs for preview
- Consult VINE K-12 initiative integrating virtual worlds
- Created Hey Avatar, a Second Life and OpenSim video tutorial series
- Produced videos of virtual events such as VSTE 2010 fashion show
- Developed tools like diploma giver, poseballs, HUDs, games
- Regularly cited for virtual worlds perspective and training focus
- Featured in virtual worlds magazines and book references
- Interviewed on Tonight Live with Paisley Beebe
- Panelist on educational 1st Question with Pooky Amsterdam
- Designed company graphics, web, and marketing materials
- Managed all small business finances, marketing, and operations

### **Site Reliability Engineer • Systems Administrator**

March 2000 - October 2002

IBM Global Services (Remote)

- Regularly administered to on-prem server systems hardware
- Achieved 99.97% uptime for 12 Sun, AIX, Linux, and SCO servers
- Provided secondary support for 45 Windows NT/2000 servers
- Conceived and implemented round-trip SMTP mail monitoring system
- Achieved highest customer satisfaction rating, 10 of 10
- Executed live upgrade of main SMTP mail relay (2000-7000)
- Proposed, deployed, and supported team Linux server
- Developed automated system performance reports
- Proactively discovered infected hosts behind firewall
- Identified and corrected faulty corporate firewall configuration

- Developed comprehensive tape backup procedure with monitoring
- Managed corporate domain name server
- Received "Thanks" awards from peers

### **Java Developer**

January 2000 - March 2000

IBM Global Services (Remote)

- Recruited to do financial sector Java applications development
- Department disbanded during month of IBM onboarding
- Independently researched internal opportunities and pivoted

### **Full Stack Web Developer**

August 1999 - January 2000

Nike, Inc. (Nike.com) (Beaverton, Oregon)

- Provided on-going development and support of Nike.com storefront
- Identified, isolated, and reported critical flaw in Java JVM to Sun
- Developed credit card and gift certificate transaction integrations
- Implemented staging and production web publishing process

### **Intranet Webmaster • Developer • Linux Administrator**

August 1996 - August 1999

Nike, Inc. (Swooshnet) (Beaverton, Oregon)

- Created SwooshNet, Nike's first intranet web portal
- One of two to receive company-wide There is No Finish Line award
- Saved over \$150k in phone directory costs by putting on web
- Chosen to cover 1998 Nagano Winter Olympics with on-site reporting
- Developed 'Knight-line', live web chat with CEO about labor issues
- Conducted live chat with video with John McEnroe and Marcelo Rios
- Developed custom secure web app for senior management presentations
- Led Y2K project to successful completion \$20k under budget on time
- Presented new tech to more than 500 technologists at regional summit
- Received best commuter award for longest regular commute by bike
- Active Hood-to-Coast relay runner and Team Nike Endorphin triathlete

### **Full Stack Web Developer**

September 1995 - February 1997

Self (Independent Contractor) (Gresham, Oregon)

- Created currency converter web app with world bank integration
- Implemented password authentication for local web marketing firm
- Developed web interface to product database for regional vendor
- Provided web design consulting to regional advertising firm

### **Full Stack Web Developer • Presenter**

May 1995 - August 1996

Teleport Internet Services (Portland, Oregon)

- Created PageWeaver, world's first web-based site authoring app
- Automated configuration for more than 150 Apache virtual web servers
- Developed web interface to existing help-desk support system
- Authored and maintained server-side scripting library for users
- Moderated 3000+ customers on `teleport.support.cgi` mailing list
- Gave 'Creating Dynamic Web Sites' workshop at Internet Exposition

- Implemented custom web site search engine

**Director of Sales • Full Stack Web Developer**

October 1994 - May 1995

Fibernet Internet Services (Provo, Utah)

- Designed, developed, and maintained corporate web site and clients'
- Created first public form processing app (`fb.pl`) used by thousands
- Trained corporate teams and executives on emerging Web and Internet
- Actively raised visibility of company through regular networking

**Cruise Director / Interpreter / Technologist / Sales Person**

May 1992 - January 1995

AmeriRuss Cruise Company (Provo, Utah / Moscow & St. Petersburg, Russia / Ukraine)

- Supervised and interpreted tour of ATT facilities for 37 executives
- Directed more than 30 cruises on Volga and Dnepr rivers
- Led dozens of tours of Hermitage museum in St. Petersburg, Russia
- Organized train travel, lodging, finances, and logistics for groups
- Negotiated sensitive issues in volatile emerging business environment
- Conducted business workshops for Russian executives and passengers
- Mediated Russian-American discussion groups and culture exchanges
- Conducted English and Russian language classes on-ship
- Replaced international faxes with email saving thousands

**Russian Language Lab Instructor**

January 1993 - June 1994

Brigham Young University, College of Humanities (Provo, Utah)

- Conducted lively Russian learning language focused on discussion
- Administered spoken language assessments
- Selected from dozens of applicants

**French Language Lab Instructor**

August 1991 - June 1994

Computer Lab Assistant (Provo, Utah)

- Assisted students with state-of-the-art language learning technology
- Managed sound and video multimedia learning lab
- Developed language training tutorials

**Owner and Developer**

January 1992 - August 1993

Sterling Scholastic Aids (Provo, Utah)

- Formed company to fill need for course-specific flashcards
- Developed flashcard printing and tutorial application
- Partnered with professors and course creators sell from bookstore
- Innovated low-cost printing process using local university services

**Certified Whitewater River Guide / Mountain Bike Tour Guide**

April 1992 - August 1992

Worldwide River Expeditions (Moab, Utah / Salmon River, Idaho)

- Conducted dozens of river expeditions
- Designated expedition leader on several trips

- Executed complicated trip preparation logistics and setup
- Certified and fully trained in CPR and advance first aid
- Personally rescued one errant kayaker injured after choosing poorly
- Led bicycle tours of historic White Rim Trail in Moab Utah
- Provided mechanical and logistical support for mountain bike events

**Mechanic / Sales Person**

May 1991 - April 1992

Reed's Bicycles (Orem, Utah)

**Software Illustrator**

May 1991 - August 1991

Taras Linguistic Systems (Provo, Utah)

**Trainer / Language and Culture Instructor / Interpreter**

June 1989 - August 1990

LDS Missionary Training Center (Provo, Utah)

## PROJECTS

- Home (on prem) Kubernetes cluster with custom cloud native apps
- Twitch/YouTube Live Stream Tech Community (rwxrob.live, rwx.gg)
- Parsing Expression Grammar Notation (pegn.dev)
- Association of Federated Knowledge Workers (afk.works)
- Knowledge Exchange Grid (keg.network)

## EDUCATION

- Bachelors of Arts, Russian, Brigham Young University, 1994, 3.6 GPA (4.0=A)

## SKILLS

- Linux/UNIX Systems Architecture and Administration
- Site Reliability Engineering (SRE)
- Cloud Native Computing (DevOps)
- System Software Design and Development
- Scripted Automation and Orchestration
- Network Protocol API Design and Development
- Domain Language and Grammar Specification
- Web and Proxy Server Setup and Administration
- Enterprise Data Collection and Management
- Structured Configuration Management and Exchange
- Terminal User Interface (TUI) Specialization
- Enterprise Domain and Data Modeling
- Event-Driven Enterprise Business Patterns
- Agile and Test Driven Development Practices
- Multi-core Asynchronous Programming
- Interprocess Communication Methods (IPC)
- Core Dump and Root Cause Analysis
- Cybersecurity Auditing and Testing
- On-Prem Systems Hardware Administration
- Supply Chain Integration
- Writing and Publication

# KEYWORDS

Linux • Ubuntu • Debian • Red Hat (CentOS) • Kubernetes (k3s) • Containers (Docker) • Virtual Machines • VMWare • Virtual Box • k3os • RancherOS • Raspberry Pi • Arduino • UNIX • Solaris • AIX • Terminal (TUI) • Command Line (CLI) • Secure Shell (SSH) • File Systems (SAN/NAS) • TCP/IP • UDP • Sockets • HTTP • SMTP • IMAP • POP3 • LDAP • Samba • SFTP • DNS • TLS • Apache • Nginx • Go (golang) • Go Templates • Perl • Python • Bash • POSIX Shell • Expect (TCL) • Fabric (FabFiles) • C • gdb • gcc • strace • HTML • CSS • JavaScript • JAMStack • Websockets • NodeJS/NPM • PEGN • ABNF • EBNF • SQL • PostgreSQL • Redis • UML • ERD • YAML • JSON • XML • TOML • Markdown • Pandoc • GraphQL • REST • gRPC • ProtoBuf • curl • nmap • OAuth2 • Vim/Vi • VSCode • TMUX • screen • Lynx • w3m • Git • GitHub • GitLab • Gitea • DigitalOcean • AWS • IRC • Slack • Discord • Twitch • YouTube • Twitter

# LANGUAGES

- American English (native)
- Russian (spoken and written)
- French (spoken and written)