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INTRODUCTION

Excel at being the person who helps business leaders bring to life their ideas from conceptualization to turning them into successful implementations, whether at a brand new start-up, or a large enterprise.

Multi-industry innovator and leader with decades of ground-breaking experience across many market vertical businesses, including but not limited to: automotive, broadcasting (terrestrial and online), community development and engagement (in-person and online), critical national infrastructure, ecommerce, education, engineering, games, (actual, measurably effective) gamification, government, healthcare, human therapeutic services, information security (InfoSec), Internet services provider infrastructure and services (ISP), media, professional training, publishing (physical and digital), resorts, software development, streaming services, supply-chain, therapeutic technologies, workflow management, virtual office and workplace, and others. Implementing Virtual Office and Workplace (VOW) services since the mid-1990s, including a wide range of video conferencing technologies.

More than a decade of experience in healthcare and also known as “The Grandfather of Therapeutic Gaming” in entertainment, recreation, healthcare, education, and role-playing game (RPG) industries when introduced by peers or at events. Extensive experience as a leader, mentor, educator, therapist, and public speaker. An extended background in information technology and computer sciences, music and recreational therapy, neurosciences and research psychology, education and cognitive neuropsychology, role-playing games, physical and information security.

Excellent bridge between the business people and technologists, with exceptionally strong communication skills, executive presence, and proven ability to confidently articulate ideas and presentations to both technical and non-technical audiences including peers, colleagues, executives, clients, investors, partners, media, employees, etc.

Decades of experience in concept-to-market platform architecture, design, and engineering including B2B, B2C, C2B, C2C, B2G, G2C, & E2E digital commerce business processes and supporting technologies. Open communication skills and experience managing multi-cultural, cross-border teams to deliver complex software projects on time, on budget, and with the highest quality.

Offering a broad skill set, from extensive technical skills to organizational strategy, and an understanding of when each is needed, enabling me to be hands-on and roll up my sleeves and dive in when the work requires it.

A results-oriented, high integrity, compassionate, creative and energetic professional, who is open-minded, adaptable, flexible, & resilient. Encouraging open dialog, adept at building communities and inspiring team members and organizations to enthusiastically achieve greatness. Simultaneously excelling at enterprise and SMB executive leadership, community engagement, architectural design, program-specific implementation, project management, as well as extensive hands-on execution experience building organizations and technology solutions from the ground up.

RELEVANT HIGHLIGHTS

- **Exceptional history turning technology, education, healthcare, recreational, and media organizations around from startup or running “in the red”, to successfully running “in the black” within 6 to 18 months** by bringing effective paradigm shifting approaches that achieve exceptional leading innovation and profitability.
- 10+ years healthcare and mental health hands-on and leadership experience.
- 10+ years recreation therapy leadership and hands-on experience.
- Fortune 100 & 500 technology hands-on and leadership experience with 10,000+ employees, as well as high-growth startups, designing and personally building infrastructure and department staffing from the ground up.
- 10+ years regularly working with multi-national teams in many disciplines across 6 continents.
- 10+ years leadership & hands-on technology experience.
- 10+ years as educator and trainer in a wide range of verticals and knowledge domains.
- 10+ years research and development (R&D) experience in multiple disciplines.
- 10+ years community programs leadership and hands-on experience for ages two through senior adults, with a wide range of functional and disability levels.
- 10+ years providing education and training, in-person and remote.
- 10+ years R&D games, game design, effective gamification, not just limited token economies.
- Asses, plan, implement, and evaluate a wide range of mental health, broader healthcare, community, and research projects used to help improve participants functioning and quality of life across the whole bio-psycho-social continuum.
- Successfully designed, prototyped, built, and delivered under budget, and on time, a platform supporting 20,000+/second concurrent users including audio, video, events, games, & chat services for international live events.
- Improved company’s client SLA compliance (previously 10%+ in violation to less than 0.1% per month), response times (8 hours to less than 1 hour), annual up times (98% to 99.98%), and efficacy of staff hours across all departments (tickets completed per hour increased 80%).
- Managed annual IT budgets of more than \$20M/year.
- Increased profitability through decreasing IT monthly budgets from \$3M/month to \$300k/mo while *improving* staffing, infrastructure, site performance, UX, traffic concurrent capacity, content catalog, competitiveness, innovation, and sales.
- Achieved & maintained 99.999% up times at multiple organizations.
- Exceeded timeline & budget expectations for creating entire startup IT departments staffing & infrastructure from scratch in less than 3 to 6 months (varied from company to company), from 0 to 35+ direct-hire IT and development staff and 20 to 100 off-shore staff.
- Performed security and performance audits on multinational infrastructure companies with hundreds of servers worldwide, supporting more than 10,000 employees and millions of online users.
- Implemented complete Single Sign On (SSO) public web-based events integration with Zoom, Wordpress, Miniorange, Discord, Uscreen, Grenadine, AWS, MediaWiki, and many other products and services, with Gluu enterprise centralized identity management, including SCIM, SAML, LDAP, Kerberos, oAuth, and related technologies.
- Integrated centralized identity management, access control, and subscriber/ticket levels with Jitsi and Zoom online convention and panel events, up to 20,000 concurrent live users.
- Managed local departments with 100+ technical staff, & multi-national remote 100+ staff.
- 10+ years extensive experience designing and implementing international virtual office remote worker telecommuting infrastructure and programs. Implemented virtual office and workplace (VOW), including audio, video, and text chat, whiteboard, file management, VPN, granular access control, and remote teleworker programs, for scores of companies since 1996.
- Video chat implementations and customization since 1996 including: CuSeeMe with self-hosted White Pine Reflector, custom-coded self-created Java applet, Purple P3 (video for ASL

interpreters), Jitsi, Zoom, Skype, G+, and dozens of other third-party video conferencing solution implementations. Deployed and customized multiple Jitsi implementations for non-profit and for-profit organizations and events, supporting tens of thousands concurrent users.

- Text chat implementations since 1979 (BBSEs, IRC, MUD/MUSH, and scores of others).
- Diverse experience with e-commerce, IaaS, SaaS, PaaS, DevOps, & more.
- Industry expertise in: IT & InfoSec, automotive, cloud services, e-commerce, education, energy, entertainment, events, healthcare & medical, media streaming, non-profits, publishing, recreation, teleworker, telehealth, video conferencing, and software development leadership.
- Lead multiple software development teams through entire development and launch life-cycle for small through enterprise-level projects using Java, C++, Python, Perl, and many other programming languages, with team sizes ranging from 2 through more than 100 developers.
- 20,000% improvement in database query read speeds (from average 200 ms to less than 1 ms), and 2,000% improvement in write speeds (400 ms to less than 20 ms), on web platform database system (LAMP) through performance tuning and database normalization.
- Demonstrated ability to simultaneously embrace macro-level strategic decisions and micro-level implementation. Managed company-level architecture, platform, data configuration processes, and implementation protocols. Coordinated third-party vendors, overseas staff, and client IT teams to seamlessly deliver effective solutions.

Board of Directors

- Dots RPG, New York, 501(c)3 non-profit charity, accessibility. Board of Directors 2020+
- RPG Research, Washington, 501(c)3 non-profit charity, research & human services, founder and board chair 2017+.

Certifications, Advanced Training, and Notable Memberships

- American Therapeutic Recreation Association (ATRA) Member, WSTRA, and PNWTRA
- Automotive Service Excellence (ASE) multiple certifications
- Broadvision (multiple) certified training Performance Tuning, Architecture, Design, Development and Administration
- Certified Nurses Aid (CNA), Licensed Practical Nurse (LPN) trainee, Habilitation Therapist
- Certified Environmental Services Technician (1994)
- Citrix Administrator (1996-2000)
- Franklin Covey Project Management, Leadership, Education, Train-the-Trainer & more.
- Institute of Electrical and Electronics Engineers (IEEE) Member
- McCabe QA, IQ, Test, and Parser
- Microsoft Certified Systems Engineer (MCSE), plus MCP and MCP+I.
- Novel Netware Certified Netware Administrator (CNA)
- Oracle DB, Applications, Database, Financials, Forms, Reports, DBO and DBA
- Project Management Institute (PMI) Member.
- Rational Clearcase and Rose.
- SANS Institute (SysAdmin, Audit, Network, and Security) Global Information Assurance Certification (GIAC) Certified Incident Handler (GCIH)
- Silverstream Certified Developer and Webmaster
- Sun Certified Systems Administrator (SCSA) and Sun Certified Java Programmer (SCJP)
- Veritas technologies Netbackup, Enterprise Vault, and others
- Washington State Department of Health Registered Recreational Therapist

LANGUAGES

- American Sign Language (EWU: 2006-2012) (can still converse well, albeit slowly)
- Chinese, Mandarin – Guānhuà 官話 / 官话 (1993-1994) (SLCC: 2007-2008)
- Finnish - Suomi (1994-1995)
- Hebrew - (2011-2012) עִבְרִית
- Hindi - मानक हिन्दी (2021) (just started learning)
- Japanese - Nihongo 日本語 (1992-1993)
- Russian - Русский (1986-1988, 1994-1995, 1996-1998)
- Spanish – Español (1982-1986)

WORK HISTORY

January 2021 - Current

Senior Technical Lead Research and Development Technology Architect

LearningMate, United States and India – www.learningmate.com

MARKET: Education, Online Education, Communication, Streaming, LMS, and Media

LearningMate has more than 1,200 employees world-wide creating and employing products and services to build and connect digital channels to enable the free flow of content, data, and learning. Supervised and worked daily with teams in India, Canada, Bulgaria, Pennsylvania, Arizona, Washington, & elsewhere.

MANAGEMENT

- Interview and train new staff in development and infrastructure roles.
- Prepare and manage project budgets
- Requisition, interview, hire, and manage additional outsourced contractors as needed when specialized skill set not available from LearningMate's pool of 1,000+ employees
- Engage others throughout the solution delivery process to provide design acceptance, understand and plan for infrastructure impacts, plan for and validate functional and non-functional requirements, ensure compliance with secure development standards.
- Continuous integration / continuous delivery CI/CD.
- Depending on the project, classical waterfall, Agile, or Agile hybrid project management (please no waterfall in sprints!)
- Scrum mastering project platform updates and management, and stand up meetings management as needed.

LEADERSHIP

- Suggest, present, demonstrate, and persuade with extensive evidence, all stakeholders to unanimously, and eventually excitedly, adopt dramatically paradigm-shifting approaches to addressing unmet client/user needs.
- Encourage and inspire others through example, work ethics, communicating clear vision, and verifying understanding of audience.
- Lead technical design sessions and development teams.
- Personally research, design, develop, and lead teams to deliver innovative solutions in support of business' strategic and tactical objectives.
- Provide hands-on, expert-level technical assistance to developers.

ANALYSIS AND DESIGN

- Evaluating traffic patterns, studying user feedback, coordinating with usability team members.
- Envisioning, planning, and documenting technology architecture by studying the needs of the target audience aligned with the site goals, corporate strategy, opportunities, and constraints.

- Translate business requirements into well-architected solutions.
- Identify problem areas and overhaul development and operations methodologies to increase efficacy.
- Architect and document technical solutions that are aligned with client business objectives.
- Create, and extensively diagram and document, user flow scenarios including many use-case scenarios as well as larger information structure, data flow, consumer journey workflow, and navigation experiences.
- Producing workflow diagrams, user scenarios, flowcharts, and storyboards and from those creating page layouts, navigation rules, organization of information, and site maps.
- Validating information delivery including through results of usability test plans.

HANDS-ON and R&D

- R&D, design, setup, administration, auditing, load-testing and performance tuning many diverse technologies.
- Extensive hands-on research and development implementation of products, evaluating sometimes hundreds of products across hundreds of variables to find exactly the right fit for a specific business requirement.
- Design, build, and extensively document infrastructure and code from ground-up and hand off to others to maintain and grow.
- Perform periodic security and/or code reviews to ensure compliance to standards.
- Secured, enhanced, and made scalable, Jitsi-based large-scale video conferencing, real-time recording and broadcasting, real-time closed captions, and offline transcriptions.
- Jitsi Meet Server (JMS), Jitsi Videobridge (JVB), Prosody, Jicofo, Jibri, Jigasi, Octo, HA Proxy, etc.
- Build entire DEVSBX, RND, DEV, TST, QA1, DMO, LOD, UAT, QA2, STG, and PRD environments from scratch.
- Build entire Amazon Web Services (AWS) cloud infrastructure from the ground-up.
- Build entire on-prem infrastructure from the ground-up.
- Automated speech recognition (ASR) and various neural networks R&D
- Real-time closed captioning and custom profanity and keyword filtering (self-implemented not using public services)
- Vosk, wav2letter, Flashlight-ASR,
- Machine learning (ML) and deep learning (DL) R&D
- Bot artificial intelligence (AI) R&D
- Offline AV language translation
- Natural language (NL) and accessible human readable, .srt., and .vtt AV to text transcripts.
- Accessible AV playback for various population needs through integration with Able Player
- Real-time, offline, synchronous, and asynchronous online learning
- [matrix] protocol implementation with Synapse Home Server, Element matrix client, custom-built, and other matrix clients, application integration management server, identity management server, bots, and other infrastructure relevant to the ecosystem
- Software, product, and infrastructure as a service development, management, and delivery (SaaS, PaaS, IaaS)
- Microservices research, development, implementation, and management
- Docker, containerd, Kubernetes, etc.
- Java and Python server applications
- Full-stack development
- JavaScript, React, NodeJS, Typescript, HTML, CSS, etc.
- Daily work with Git, Bitbucket, Github, and Gitlabs
- Go, Python, Java, C, C++, C#, .Net, and various shell scripting

- Amazon Web Services (AWS) SysOps, DevOps, EC2, CloudWatch, ECS, advanced networking, & more
- Extensive Ansible and Terraform infrastructure coding development and automation
- MS SQL, Postgresql, MongoDB, MySQL, MariaDB, SQLite, NoSQL, and FireBase
- Nginx, Apache, and IIS
- Online Learning Management Systems (LMS), custom-built proprietary systems, as well as opensource systems such as Moodle, open edX, and others.
- Extensive use of Jibri and Confluence.

I was asked to join LearningMate to help save a specific critical project that was attempting to develop a complete Zoom and online learning replacement using customized opensource-based real-time communications media, conferencing, and learning technologies whose implementation was in jeopardy.

Specifically hired due to my extensive background with relevant enterprise and global-scale high capacity implementation of opensource and commercial technologies in video-conferencing, media streaming, education, online learning, community building, distributed synchronous and asynchronous communications and learning.

The previous project was also very sparse in planning and documentation. The revised project was much more extensively designed, tested, and documented, making sustainability much more manageable for future teams.

Some technologies and proprietary information are currently under NDA. The technologies listed here are the open source products introduced to avoid having to “reinvent the wheel” and focus instead of the specific areas distinctive to LearningMate’s solutions. Also worked on overhauling existing dysfunctional project design, management, development, staging, testing, and production roll-out methodologies.

August 2020 - May 2021

Corporate Training Program Designer and Instructor

Public Broadcast Service (PBS), Arlington, VA – www.pbs.org

MARKET: Corporate Culture training, Real-time and Asynchronous Learning, Education, Online Education, Recreation Therapy, Role-Playing Game, Professional Development.

Contracted through RPG Therapeutics LLC, provided consulting and educational training services related to recreation therapy, gaming, and accessibility for the Public Broadcasting Service (PBS) national network in the USA.

Utilized extensive range of methodologies, technologies, & customization:

- * Recreation Therapy & Therapeutic Recreation
- * Cognitive neuropsychology of learning in educational and other settings
- * Videoconferencing development for Zoom and Jitsi
- * [matrix] federated communications, matrix-synapse, element-web, sydent, etc.
- * Vector / Riot / Element
- * Moodle LMS
- * Odo ERP
- * Video recording / editing
- * Closed captioning for Hard of Hearing (HoH) / Deaf
- * Transcriptions for Visually Impaired (VI) / Blind
- * Brain Computer Interface (BCI) technologies

- * Robotics controlled by BCI
 - * Python, Java, JavaScript, NodeJS
 - * Nginx, Apache, IIS
 - * SQLite, Postgres, Firebase, Firestore
-

October 2016 – August 2021

Chief Technology Officer (CTO)

The Fantasy Network, Bellevue, WA. - www.thefantasy.network

MARKET: Entertainment Media, Live Events, Online Events, Streaming, OTT, SVOD, Communication.

End-to-end movie and live streaming studio and on-site production, broadcasting, and supply chain delivery of physical and digital media products. Later extended to large-scale live interactive events platform. Taking the CEO's vision and turned it into a reality. Literally built and ran 1.0 of the platform in my living room. The Fantasy Network (TFN) over-the-top (OTT) subscription video-on-demand (SVOD) service delivers creator-owned genre television and film content in a more accessible, shareable, and discoverable way across the web and via IPTV apps on iOS, Apple TV, Roku, Android, Android TV, Amazon Fire, and Chrome TV.

In developing architecture for TFN versions 1 through 3, from scratch I scoped, designed, built, modified, implemented, and extended, personally evaluated, installed, configured, cobbled together, hacked, & prototype tested over 80 technologies, eventually whittled down to 6 core technologies & other supporting products and third-party service providers fully integrated into a single sign on user-friendly experience. Integrating Gluu enterprise identity management, WP, Grenadine, Discord, Zoom, Jitsi, and other technologies into single sign-on (SSO) smooth user experience.

With version 4, expanded team size, hosting, partnerships, and developers, to expand the platform to additionally provide live-events support through integration with multiple platforms including Zoom and Jitsi, providing interactive participant audience of over 20,000 concurrent users for large virtual live international convention and film festival events, in video chat, panels, awards, ceremonies, game tables, and more.

A few example events hosted on TFN platform in 2020:

- Seattle Film Festival
- New Zealand WorldCon 78 CoNZealand and Hugo Awards
- Indianapolis GenCon Film Festival
- Australia Technorama
- Realm Makers
- USA ZoeCon

Version 4.5.x branch is now only in maintenance/security support mode, as we design, prototype, and implement version 5.0 as we add additional SSO integration for Mux, VidApp, Wordpress, WooCommerce, Miniorange SSO and API, and other technologies extending the platforms features and smoother user experiences.

Example events saved from cancellation in 2020 due to our platform:

- ZoeCon IV
- Technorama Australia 2020
- Realm Makers 2020
- 78th Annual WorldCon / CoNZealand / Hugo Awards
- GenCon Online Film Festival 2020
- Seattle Film Festival 2020

Hands-on administrative and custom modifications:

- OdoO / OpenERP, Moodle online learning platform, CollectionSpace museum collection management platform
- Jitsi Meet with Prosody, Jicofo, Jitsi-Videobridge, Rocket Chat, OdoO, Moodle, OpenEduCat, MatterMost, and many others.
- Zoom integration with our own internal SSO and subscribers
- Gluu, SSO, OAuth, OpenID, Passport, SAML, SCIM, etc.
- Modoboa email services platform
- Multiple API integrations
- SSO and other development and integration for:
 - Discord Integration, Application, Bot development, and extensions
 - Grenadine integration
 - Wordpress and WP modules customization and integration
 - Woocommerce
 - Miniorange
 - Uscreen
 - Jwplayer
 - Mux
 - VidApp
 - Patreon
 - Gumroad
 - Paypal
 - Discourse forum software
 - Plone
 - MediaWiki
- Linux distros: CentOS, Debian, Ubuntu
- DNS management and hosting
- Openbroadcast Server (OBS), Streamlabs, Youtube & Twitch live audience-interactive broadcasting events
- Various virtual hosting and cloud services: AWS, Google Cloud, Azure, KVM. VirtualBox, KVM, vmware.
- Apache, Nginx, httpd
- HTML, CSS, XML
- PostgreSQL, MySQL
- Node.js (and many related apps), Bash, JavaScript
- Github
- Firewalls, Intrusion Detection Systems (IDS), Intrusion Protection Systems (IPS)
- Project Management

01/2019 - Current

Founder, CEO, President, Chair, CTO, Director of Research and Development: Software and Hardware

RPG Research

www.bcirpg.com - Spokane, WA

MARKET: Research and Development, Accessibility, Neurosciences, EEG, BCI, Games, Software Development, Hardware Development.

Building from the ground up in 2017, now over 200 volunteer staff members across 6 continents in many roles. In the software development department, Director of Software Development, lead for

software development team of 10 to 15 developers working on Brain-Computer Interface (BCI) ERPG multi-user online turn-based system.

RPG Research is a 501(c)3 non-profit research & human services organization with over 150+ staff across 6 continents.

SKILLS AND TECHNOLOGIES:

- Github
- Twine
- Python, JavaScript, Java, C++, Bash
- Visual Studio Code
- GCC
- Godot, GD Script
- Autora Toolset, NWN:EE server
- Jitsi
- Matrix
- Odoon / Open ERP
- Ubuntu Linux, CentOS Linux, OpenBSD
- Draw.io / diagrams.net
- Apache, Nginx, Httpd server (centos)
- Flowcharts, UML, Unit test design

Summers 2010-2012

Instructor Lego Mindstorms Robotics After-school and Summer Camps

Saint George's School

Lead instructor running after school and summer camp programs using Lego Mindstorms products

March 2010 – July 2018

Architect, Network & Systems Engineer, Sales Engineer, Project Manager, Consultant.

Interlink Advantage (now Intrinium) - www.intrinium.com

MARKET: IT, InfoSec, Consulting, Hosting.

Including civilian and government clients with more than 5,000 employees. Networking, systems, sales, consulting, project management, and many other services provided as consultant and service provider.

SKILLS AND TECHNOLOGIES:

- Azure, Office 365 (O365) and Exchange
- Zimbra
- KVM
- OpenERP, AutoTask, Enterprise Resource Planning (ERP), Project Management
- Ubuntu Linux, Windows Server
- Networking, Virtual Private Network (VPN), SSH, IRC, ZNC, rsync, DNS, Samba
- American Sign Language (ASL)
- Linux
- Information Security
- HIPAA Audits
- Security Audits
- City, county, state, federal, and international standards compliance

- InfoSec Incident Handling
- Research and Development
- Intrusion Detection System (IDS)
- Network and computer systems administration
- Software development, bash, Java, C, Python, HTML, CSS, JavaScript
- Requirements analysis, Documentation, Scoping, Compliance, Quality Assurance
- Authentication, LDAP, OAuth, OAuth, Single Sign On (SSO) related protocols, API, and integration, Active Directory
- OpenVPN, LTSP, PPTP, IPSec, L2TP
- Proxies and reverse proxies, Squid
- Access Control Lists (ACLs)

Example non-NDA clients I directly supported (NDA clients excluded):

- People to People Ambassadorial Group Program
- ABHS – American Behavioral Health Systems
- Cheney Federal Credit Union
- City of Cheney RVI
- Contract Design Associates
- Cyrus O’Leary’s Pies
- Discus Analytics
- Eastern Washington Center for Deaf and Hard of Hearing (now Nexus for Deaf & Blind).
- Feichtner Data Group
- Fruci and Associates PS
- Gargoyle Granite and Marble, Inc.
- Houk Chiropractic
- Inland Empire Distribution Systems
- Inland Meats
- Manpower
- Mines Management
- Northwest Museum of Arts and Culture
- Progressions Credit Union
- Scanivalve
- Spokane Guilds School
- Summit Rehabilitation and Associates
- Washington State Arts Commission
- Whipple Consulting Engineers

01/2002 – Current - **President and Consultant**

Dev 2 Dev Portal LLC – www.dev2dev.com

MARKET: Technology hosting and consulting services all industries.

Including civilian and government clients with more than 10,000 employees. Providing Virtual Office and Workplace, VPN, Information Technology, and Information Security services and consulting. Hundreds of clients, and thousands of technologies.

RELEVANT TECHNOLOGY HIGHLIGHTS

- Jitsi, Voip, Skype, Zoom, G+ Hangouts, and many other video conferencing applications and servers

- Solaris, Netware, Linux (Redhat, SuSe Enterprise, CentOS, Ubuntu, Debian, Gentoo, & many others), Windows Server, OpenBSD, FreeBSD, Mac OS X Server, FreeBSD, Android, iOS, DOS.
- MS SQL, Access, Oracle (7, 8, 9, & 10) MySQL, PostGreSQL
- Java, C, C++, VB, Bash, Perl, Php, Python, SQL, TSQL, PLSQL
- Redhat Interchange, Broadvision, Silverstream, PhpNuke, PostNuke, Geeklog, Zope, Plone, Apache, Arsdigita Community System (ACS), iPlanet 5.x
- ESSBASE, Brio, PEEP
- VPN, PPTP, IPsec, L2TP
- MS Project & Central Server,
- Apache, httpd, nginx, IIS
- SMTP, POP, IMAP, Qmail, Ezmlm, Squirrelmail, Spamassassin, Horde, MS Exchange, OWA, Sendmail
- Shoutcast, Icecast, Real Broadcast, SimpleCaster, SAM2 Broadcaster, Winamp, DSP,
- IRC, ZNC, HybridIRC, Hexchat, Hybserv, eggdrop, mirc, xchat
- DNS
- LDAP, Novel eDirectory, Netware BIND, ADS, Gluu, SNMP, RADIUS, Kerberos, LEAP, 802.1x, x.500, SSO, SAML, SCIM, Oauth
- MRTG, HP OpenView,
- Verisign, Wells Fargo Merchant Services, Payflow Pro, Paypal, and similar integrations with e-commerce platforms
- SSL, ipchains, iptables, pf, ufw, Cisco, Netscreen, Tripwire, nmap, nessus, snort, etheral, etherape, snort, kismet, netstumbler, and many others.
- FTP, SFTP, vsFTPD
- Visio Enterprise, Kivio, draw.io/diagram.net
- Microsoft Office, StarOffice, OpenOffice, LibreOffice
- Wifi 802.11a/b/c/g/n, Optistreams & Hughes Internet Satellite (& others), 900 Mhz, DSSS T1, Cisco Aironet, 3Com, Intel, D-link, Hyperlink, Fab-corp, Linksys, CDPD, Ricochet, and many others

09/2000 – 02/2002 - **Chief Technology Officer**

MightyWords Inc., a startup by Fatbrain, later acquired by Barnes & Noble

<https://web.archive.org/web/20010822040910/http://www.mightywords.com/>

MARKET: Media, Publishing, Online Publishing, eBooks.

As CTO, entire startup life-cycle from beginning, through industry leadership as the number one online ebookseller, to acquisition.

80+ employees.

- Built entire IT department from scratch: facilities acquisition, in-house hiring, and multi-national third-party off-shore, VAR contracts \$10M+
- Directly responsible and check-signatory for IT dept. annual budget \$20M+.
- Lead R&D for industry changing DRM beating all competition & reducing industry standard Adobe DRM 50% support tickets to <5%.
- Lead development team from scoping, through QA, to full production and update releases

Frequent board and partner meetings, negotiated agreements & regularly worked directly with industry executives from: Adobe, Amazon, Barnes & Noble (B&N and BN.com), Microsoft, IBM, & many others.

Built entire technical infrastructure (servers, network, workstations, printers, firewalls, Internet connectivity, email, software, etc) from scratch.

Successfully implemented complete wireless ("secured") LAN and wireless mobile user ("road warrior") infrastructure keeping our sales, technical and executive staff well connected, with up to date information, and easy, constant access to resources.

Personally implemented complete V.O.W. (Virtual Office & Workplace) including VPN, audio & video conferencing, application sharing, and later handed off to Operation Team when those positions were finally filled.

Development Director in addition to maintaining CTO position

Managed the creation, development and successful deployment of an industry revolutionary DRM (Digital Rights Management) client and server technology.

Managed team of developers and administrators running a content management, e-Commerce, and co-branding system handling over 50,000 DRM managed PDF documents for sale, 100,000+ supporting images, over 150 distribution partner sites & over 5,000 content providers.

Architect & administrator of many "N-tier" environments on different scales as fit traffic and up time requirements.

HANDS-ON TECHNOLOGY EXPERIENCE

- Cybersource, CVS, Bugzilla, Rational Rose, Clearcase, and related suite of products
- TOAD DB Management
- Sun e220r (20+ systems), A1000 (4), D1000 (4), E450 (1), Ultra 10 (25+)
- Cisco Catalyst 19xx series, Netscreen 10
- Solaris 7, VA Linux systems (20+), Redhat, Mandrake & VA Linux 6.2 through 7.2
- Dell 1400 series servers
- PPTP & IPSEC
- Oracle 8.1.6 & 8.1.7 with Veritas, MySQL, Postgresql, MS SQL 2000,
- ACS, (Arsdigita Community System & CMS), Aolserver, Tomcat 3, Apache
- MS Exchange 2000 (Exchange/Outlook, IMAP, POP, SMTP)
- ADS, MS Windows 2000 Advanced Server, MS Project 2000 & MS Project 2000 Central Server,
- Qmail, Ipchains, Poptop Server, SMB, Cupsd,
- CDPD (AT&T Wireless & Verizon Wireless), Ricochet services (until their demise), Optistreams & Hughes Satellite Internet Satellite services (1.8Mbps down, 90Kbps up completely landline free system), Spread spectrum wireless T1.

03/1999 – 09/2000

Corporate Architect and Director of Operations

Franklin Covey ESD www.franklincovey.com and Franklin Covey Online Learning

www.franklincoveyme.com/solutions/Online-Learning

MARKET: IT, Data Management, Project Management, Online Education, Media, Publishing, Professional Development.

4,000+ employees. Architect, design, & assist in implementation of development, staging, QA, and production environments for eCommerce, online planning, online training, device synchronization, colocation & hosting providers, as well as other services. Worked in key roles developing the Franklin Covey Online Training program. Designed entire architecture & documentation for complete implementation plan, purchased & installed hardware and software, configured, documented, and detailed ongoing maintenance and growth plans for project to complete after finishing my contract term.

RELEVANT TECHNOLOGIES

- Solaris 2.7 & 8, Windows Server, Redhat 6.2, HP UX, AIX, Netware, Palm OS, Windows CE
 - ADS, NDS, SSO
 - Allaire JRUN 3 and ColdFusion
 - Oracle 8i, SyBase, MS SQL, DB2, VMS, VMAX, TOAD
 - IIS, Apache, Netscape Enterprises Server, Solstice Suite, Jsev, EAS 3.x
 - VNC, PPTP, IPSEC
 - Broadvision, Coldfusion, Jini
 - Java JDK 1 & 2, Symantec Cafe, IBM Visual Age, Sun Forte for Java
 - Rational Clear Quest, Visual Source Safe
 - Fusion one synchronization services
 - Built and maintained 99.999% up times
 - Built and extended video conferencing systems
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1993 – 1995

Instructor, Instructor Trainer, Program Creator, and Administrator

Utah Career College (Bryman Schools)

American Automotive Institute

MARKET: Education, IT, Graphics Design, Automotive, Professional Development.

Instructor roles in automotive, computer sciences, and graphics design.

Created entire graphics design training program (would become certificate program).

Trained other instructors in the graphics design program.

Also assistant systems and network administrator.

1990-1992

Habilitation Therapist

Hillcrest Care Center, Utah

MARKET: Healthcare, Mental Health, Rehabilitation, Long-term Care.

Provided morning facilitation and care for DD/MR long-term care facility. Ages from young adult through seniors. Facilitate morning functions, preparation for daily programs.

1989 - 1991

Certified Nurses Aide, Licensed Practical Nurse trainee, EMT trainee

Doxie Hatch Medical Center, Utah

MARKET: Healthcare, Mental Health, Rehabilitation, Long-term Care.

On-call CNA, all shifts, and all floors.

LPN trainee student, provided by Doxie Hatch.

Cared for wide range of populations from young adults through seniors, including SCI, TBI, coma and terminal patients.

1988-1995

Properties and Information Security Services Manager

Laurelwood Offices, Villa Franche, Meadowbrook, Rose Park, Brittainny Apartments.
Salt Lake City, Murray, South Salt Lake, Utah.

MARKET: Properties, Management, Physical Security, Information Security.

Manager of property security for business office and residential properties. Information security and physical security services. Units ranged between 20,000 to 100,000+ square feet, 100 to 300+ units, per property. Risk management, theft and damage mitigation, security logs, arrests, court testimonials for evictions (never lost a single case), technology and data protection, etc.

1983-1995

Automotive Technician – Automotive Computer, Electronic, Electrical, & Performance Specialist

ID, UT, CA, MN, and elsewhere

4x ASE Certified (1990), Electrical, Engine Performance, Emissions, Computer Controls

Precision Tune 5 Star Certification.

Multiple “Technician of the Month” awards, and Technician of the Year award.

Instructor: American Automotive Institute (1993-1995)

Technician: Auto Care Clinic (1989-1991)

Technician & Sales: Precision Tune (1989-1990)

Technician: Car City (1988-1989)

Technician: Lost Packer Mine (1983-1987)

MARKET: Automotive, Transportation, Environmental

See more detailed automotive-specific resume online here:

<https://www.hawkenterprising.com/archives/resumes/experience/automotive-industry-experience>

1978-1998

Independent Software Developer

Began programming in 1978 at just 8 years old, and online via ARPANET through University of Utah, and on BBSes since 1979. First paid programming gig at 11/12 years old (1982) creating inventory and point of sale (PoS) software for a neighborhood video rental store. Wrote in innumerable programming languages over the years, but the more commonly used ones were: BASIC (many variants), Pascal, C, C++, AREXX, Oak → Java, COBOL, Fortran, perl, python, and many, many others.