

William “Hawke” Hawkes-Robinson

Extraordinarily innovative, ethical, scalable, productive, & profitable global technology innovator.

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OVERVIEW

Extraordinarily ethical, productive, & profitable global technology architecture design, development, implementation, and scaling.

- 25+ years overall technology hands-on & leadership experience scoping, designing, developing, implementing scalable leading-edge multi-tier and full-stack server, web, mobile, & enterprise platforms, applications, and AI/ML solutions.
- 15+ years full SDLC/PDLC experience.
- 12+ years hands-on bot/ML/LLM/AI design, research, & development.
- 10+ years data science and hands-on DBA experience.

Proven track record of driving digital transformation initiatives and delivering state-of-the-art products in startup, enterprise, SMB, and non-profit environments. Expert in cloud, on-prem, & hybrid technologies, MLOps, COTS and full-stack development. Exceptional at translating business goals into highly successful scalable technology designs and implementations. Adept at collaborating across all levels of technical and business teams to align development, platform, and AI implementations with companies' strategic goals.

KEY ACHIEVEMENTS

- Rapidly developed and scaled online live interactive events & concurrent users capacity from just 100 per second to over 20,000/s in less than 3 months, and to over 40,000/s in less than 1 year.
- Designed & developed real-time ASR NLP AI 150% faster & 30% more accurate than Google's.
- Pioneered AI components and scalable cloud infrastructures, achieving 99.999% up times and 900%+ performance scaling.
- Mastery in technology architecture, development, systems/network administration, security, AI, brain-computer interface (BCI) neurotechnologies, interactive bots, & more.
- Unique blend: Technology, neuroscience, recreational therapy, research psychology, education, & healthcare, media, & gaming background. Globally recognized as "The Grandfather of Therapeutic Gaming".
- Ethical Technology Design Advisor and consultant to PBS, Devon Energy, AT&T, Hero Fitness, and numerous other notable organizations, bridging technology, healthcare, education, and other human-centric disciplines.
- Created 400+% PDLC/SDLC efficiency gains coupled with 90% operating & development cost reductions, 300% profitability increases
- Designed, developed, and implemented entire software and full-stack web platforms from scratch for small-to-mid-size-businesses (SMB) & startups from zero to market leadership within 6-18 months.

PROFESSIONAL EXPERIENCE

Full-Stack Information Technology and Flutter Developer.

WebTPA / MedSysGroup / GuideWell. Irving, TX (remote) | April 2024 – Present.

- Scope, design, research, development implement enterprise platform for healthcare industry third party administration software.

- Web and mobile enabling legacy data systems for many major health insurance companies, including but not limited to: Prudential, The Hartford, Anthem, Blue Cross / Blue Shield, GatorCare, and others.

Technology Stack: Most details under NDA, but high-level overview includes: Azure cloud, AADB2C, API Manager (APIM), MS SQL Database Servers, stored procedures development Postman API, API development, Swagger, cross-platform Dart / Flutter custom coding, Windows, Mac, Linux, Android, iOS, Web Desktop, Web Mobile, Contentful, DataMotion, Pendo, OAuth, Auth0, SAML, SCIM, and other cross-partnership SSO technologies, Linux, Windows, Mac, iOS, Android.

Artificial Intelligence and Full-Stack Developer, Systems & Data Architect, DBA & Systems Administrator. Practicing Musician SPC. Bellevue, WA (Remote) | January 2024 – Present.

- Lead strategic technical planning, architecture design, and implementation of AI-powered fully interactive asynchronous and synchronous learning management system (LMS) music education platform.

- Develop and integrate custom-trained LLMs and specialized AI models for educational Learning Management Systems

- Implement MLOps practices using AWS, GCP, and Azure for model training, deployment, and monitoring

- Architect and build enterprise-grade infrastructure leveraging cloud and on-premises solutions

- Custom-built LLMs and SLMs for interactive learning bots, real-time chat and video communication, and course curricula generation

Key Achievements:

- Reduced infrastructure costs by 90% while enhancing features and capacity through strategic use of open-source and custom implementations
- Implemented AI ethics design, documentation, and compliance for bias, fairness, transparency, and safety

Technology Stack: Extensive Artificial Intelligence (AI) development (most details under NDA with Patent Pending), Microsoft Azure, Amazon (AWS), Xen cloud, Docker, containerd, Kubernetes, CI/CD, ADO, JavaScript, Node, Ruby, MySQL, PostGreSQL, MS Exchange, WordPress, Nginx, Matrix, Moodle, Python, JavaScript, Node, Visual Basic, Java, XWiki, ERPNext, Janssen SSO scalable federated authentication and authorization, Grafana, Prometheus, MediaCMS, and Flutter for web, mobile, & cross-platform desktop, Linux, Windows, Mac, iOS, Android.

Artificial Intelligence and Full-Stack Developer, Systems & Data Architect, DBA & Systems Administrator.
ManufacturingPower Inc., Saint Paul, MN (Remote) | April 2022 - April 2024

- Designed and built enterprise web platform connecting tens of millions of parts from manufacturer catalogs to distributors
- Architected and implemented AI/ML solutions for supply chain optimization and predictive analytics
- Led development of multi-modal LLMs, contrastive learning models, and parameter-efficient fine-tuning of LLMs
- Scaled data science infrastructure to handle 10M+ parts catalog data set batches.

Key Achievements:

- Developed broad range of Data enterprise web and mobile applications. AI components including machine training and learning (ML), neural network / deep neural network (NN/DNN), generative adversarial networks (GAN), NLP, ASR, large language model (LLM) for real-time language recognition, ASR in video/education platforms, AI chatbots, and data analysis tools for manufacturing supply chains.
- Built and integrated fully automated multi-lingual translating system with better than Google Meet accuracy and speed for up to 14 different languages.

Technology Stack: Google GCP, Amazon AWS, Docker, containerd, Kubernetes, CI/CD, ADO, JavaScript, Node, MySQL, PostGreSQL, MongoDB, MongoDB Cloud Atlas, Atlassian Jira, Confluence, Gitea, Matrix, Python, Jitsi, Java, Android mobile native, iOS mobile native, Flutter cross-platform web & mobile, Altova MissionKit, Mapforce, StyleVision, XMLSpy, Umodel, DatabaseSpy, DiffDog, SchemaAgent, data management & wrangling, Linux, Windows, Mac, iOS, Android.

Senior Technical Lead, R&D Technology Architect

LearningMate, Philadelphia, PA (Remote) | January 2021 - April 2022

- Extended custom development of Learning Management System (LMS) with robust video conferencing, custom AI chatbots, and interactive learning tools.
- Developed and integrated ML models for automated speech recognition, natural language processing, and content personalization.
- Implemented MLOps practices and CI/CD pipelines to streamline model development and deployment
- Designed, developed, and scaled software and infrastructure to support 40,000+ concurrent users during peak times.

Key Achievements:

- Scaled learning management system (LMS) from 200/s to over 40,000+/s concurrent simulated interactive functional and load testing users and bots
- Implemented custom real-time and asynchronous automatic speech recognition (ASR) and natural language processing (NLP) neural network platform that was 150% faster and 30% more accurate than Google, supporting 14+ languages simultaneously, and developed real-time profanity filtering.

Technology Stack: Machine Learning (ML) and Artificial Intelligence (AI) custom development (most details under NDA), Docker, containerd, Kubernetes, CI/CD, ADO, Python, JavaScript, Node, C#, .Net, C, C++, Java, Go,

Microsoft Azure, Microsoft on-prem servers, MS SQL DB Servers, PostgreSQL, MySQL, MongoDB, Jitsi, Github, Bitbucket, Gitlab, Atlassian Jira, Confluence, Linux, Windows, Mac, iOS, Android.

Developer, Administrator, Architect, DBA & Data Scientist, SSO & Security Specialist.

Zombie Orpheus Entertainment. Bellevue, WA. (Remote) | October 2016 - August 2021.

- Architected, developed, and built over-the-top (OTT) subscription video on demand (SVOD) and non-SVOD video streaming platform from scratch, scaling to 20,000+ concurrent users.
- Custom-built and customized integrated AI/ML capabilities for content recommendations, AI chatbots, business intelligence, data modeling, user behavior analysis, and automated captioning.
- Implemented cloud-native architecture on AWS, leveraging serverless and container technologies.
- Led development of real-time interactive event platform supporting large-scale virtual conventions..

Key Achievements:

- Scaled Jitsi & Matrix to over 20,000 concurrent live video chatroom users in conventions/event settings
- Delivered entire working platform for only \$10,000 in development costs, saving over \$1M USD compared to initial plans.

Technology Stack: AI (custom-built and open source), Java, Python, JavaScript, Node, PHP, Matrix Jitsi, PostgreSQL, MySQL, Nginx, Apache, WordPress, Grenadine, SSO, SCIM, SAML, Auth0, Oauth, Gluu, IdP, OpenID, Amazon AWS, Xen, On-prem & hybrid, Linux, Windows, Mac, iOS, Android.

Information Security Services, IT, Full-Stack, AI, & Chatbot Developer, Security Specialist, Systems Administrator, Architect, Project Manager, Chatbot & Full-stack IT Developer.

Interlink Advantage (acquired by Intrinium). Spokane, WA. (Hybrid) | March 2010 – July 2018.

Wore many hats for information security and information technology services company, supporting 250+ client accounts, hands-on developing and supporting many different languages in many technologies, including machine learning, business intelligence, chatbots, artificial intelligence, for small businesses to large enterprises.

Chief Technology Officer (CTO) & Architect.

MightyWords Inc.(acquired by Barnes & Noble). Santa Clara, CA. (Hybrid) | September 2000 - March 2002.

Hired all technology staff, built entire technology department and publishing ecommerce platform from scratch, to become number one eBook publishing company.

Director of Operations and Chief Corporate Systems & Components Architect.

Franklin Covey Co. Salt Lake City, UT. (Hybrid) | June 1999 to June 2000.

Started as contractor through Information Technology International (ITI), then hired as FTE as UNIX Systems, Network Administrator, Application Servers & Java Developer, worked way up to Security Manager, Director of Operations, and Chief Corporate Systems & Components Architect in just 9 months (4,000+ employees across 150 countries).

Developer, Systems & Network Administrator, Chief Information Officer (CIO).

PC Easy. Salt Lake City, UT. | September 1996 to June 1998.

Started as PC technician, developer, & administrator, worked up to becoming CIO.

ADDITIONAL RELEVANT EXPERIENCE

Information Security Specialist, Chief Architect, DBA, Network & Systems Engineer

Interlink Advantage (now Intrinium), Spokane, WA (Remote) | March 2010 - July 2018

- Supported 200+ clients with on-prem, collocated, cloud, and hybrid-cloud infrastructure
 - Developed and managed interactive chat bots, IRC, server, & web bots, API, AI, ML, LLM, SLM, NLP, SIEM security automation tools
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Data Science Specialist

Infoco Inc., Albuquerque, NM | February 2005 - April 2009

- Provided data science expertise for Microsoft SQL Server database design and optimization

- Improved overall DB performance by 900%+, reducing average query latency from 2,000 ms to <2 ms
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TECHNICAL SKILLS

- AI/ML: PyTorch, TensorFlow, Keras, Scikit-learn, NLP, ASR, Computer Vision, Reinforcement Learning, GANs, LLMs
- Cloud & DevOps: AWS, GCP, Azure, Kubernetes, Docker, Terraform, Ansible, Jenkins, GitLab CI/CD
- Languages: Python, Java, JavaScript, C/C++, R, SQL
- Big Data: Spark, Kafka, Hadoop, MongoDB, Elasticsearch
- Monitoring & Analytics: Grafana, Prometheus, ELK stack

EDUCATION & CERTIFICATIONS

- Associate's Degree in Computer Science, Certified Careers Institute, GPA 4.0
- Nvidia Developer Deep Learning Institute (DLI) Training
- Google Developers Machine Learning Certification
- AWS Certified Solutions Architect
- SANS GCIH (Global Information Assurance Certified Incident Handler)

LEADERSHIP & COLLABORATION

- Managed global teams of 200+ staff across 6 continents
- Collaborated with C-suite executives to align technology initiatives with business strategy
- Mentored and developed high-performing engineering teams
- Presented complex technical concepts to diverse stakeholders
- Demonstrated success in startup, SMB, and multinational corporate environments with over \$20B USD in annual revenue

TESTIMONIALS

Rob Zazueta, VP Developer Relations and Customer Engagement, Soluble. San Francisco, CA USA.

Hawke is largely responsible for the developer I am today. While at MightyWords, he sort of took me under his wing & gave me the room to expand my knowledge & make a massive impact on the technical operations of the company while providing opportunity after opportunity to let me learn, grow & put my new-found knowledge to work. His knowledge is amazingly broad & deep & he is able to see the big picture for any project & get the right people in the right places at the right time to make it all come together. On a personal level, he is one of the most generous & friendly people I have ever had the pleasure of knowing. This engendered a loyalty to him that I still haven't shaken. I consider him a natural leader for all of these reasons.

Brian Scardina. Sr. Director Information Security at Global Payments Inc. Conifer, CO USA.

Sr. Director Information Security at Global Payments Inc.

Hawke was an outstanding leader with the highest level of integrity. He took a rag tag team of developers & built an amazing department through coaching & leading by example. Hawke is a perfect blend of business man meets technical maven. I would recommend Hawke to any company looking for a stand-up leader, with great people skills & a broad understanding of technology.

Mike Franz, Founder & CEO ManufacturingPower & iNSUPPLi. Greater Minneapolis-St. Paul Area USA.

I have had the pleasure of working with Hawke & I am consistently impressed by his professionalism, dedication, & expertise.

Hawke is responsible for overseeing all aspects of our company's technology infrastructure, including software development, system administration, & security. He has demonstrated a deep understanding of the latest technological trends & is always ahead of the curve when it comes to implementing new technologies & processes.

Hawke's ability to manage a team of technology professionals is remarkable. He is always approachable & available to his team, providing clear guidance & support to help them succeed in their roles. His leadership style is collaborative, encouraging open communication & transparency at all times.

One of the key strengths Hawke has brought to his role as CTO is his strategic thinking. He is able to identify opportunities for innovation & growth within the company & has been instrumental in developing & implementing successful technology strategies with a direct impact on the company's bottom line.

In summary, I have no hesitation in recommending Hawke.

Scott Heilman, COO at ManufacturingPower. Greater Minneapolis-St. Paul Area USA.

Hawke is a complete pleasure to work with, at ManufacturingPower he demonstrates exceptional leadership, technical expertise, & a passion for driving innovation. He possesses a deep understanding of the latest technological trends & advancements, & is able to effectively translate these into practical solutions that drive business results.

In addition to his advanced technical acumen, Hawk demonstrates an outstanding leadership. With the talent to inspire & motivate cross-functional teams to achieve their goals. Strong communication skills demonstrated daily with stakeholders, vendors, & other internal teams ensure that projects are delivered on time & on budget.

One of the things that I appreciated most about working with Hawke, is his tenacity to balance the need for innovation with the need for quality control. The ability to drive documentation, accountability, along with the persistence to do the right steps are spot on! He is able to effectively manage complex projects while maintaining a high level of attention to detail, & is able to adapt quickly to changing business needs.

Hawke has been an exceptional addition to our organization at ManufacturingPower, & I highly recommend him to tackle high level projects & roles that add instant value.

Sincerely, Scott Heilman.

Daniel Lawrence, AVP Engagement Management (K-12), LearningMate. Mumbai, India & Baltimore, MD USA.

Hawke's broad expertise, deep knowledge, security-first mindset, detailed documentation, & ability to stay abreast of current technology trends is remarkable. It's been fantastic working together -- Hawke's work ethic is impeccable. He is a tremendous coach & mentor & was always the first person to offer help & support to his team. Hawke brings a unique skill set & breadth of experience that would benefit any organization. Overall, Hawke was truly a pleasure to work with & I have no qualms recommending him for senior technology leadership roles. Thanks, Hawke!

Anoop Datar.

Product Owner | Product ManagementProduct Owner | Product Management, LearningMate

I had the pleasure of working with Hawke Robinson on a very challenging project. Apart from his diverse technical expertise, what amazed me was his level of meticulousness & thoroughness in solutioning. He leaves no stones unturned & got some great solutions to the table for our academic setting. His collaborative approach to working with the open-source community surely gives him an edge.

I will be happy to work with him on another challenge if the opportunity presents itself. Hawke will be a great asset to any organization that hires him.

Phillip Hillian, CEO, Lakeview. Norman, OK USA.

I can unequivocally recommend Hawke Robinson as a person of high integrity & one of the very best technicians that I have ever worked with. I have worked with him on several teams & diverse projects & he has ALWAYS exceeded the expectations of the mission. His detailed knowledge & unyielding dedication make him an ideal choice for any effort on any team.

One of the brightest & most dedicated individuals I have ever met, Hawke is a highly skilled technician as well as a uniquely talented individual. He demonstrates outstanding leadership abilities, an unparalleled work ethic & enjoys tremendous success in all efforts he undertakes. Finally, & perhaps most importantly, he is an extremely pleasant person to work around. I can recommend Mr. Hawke Robinson as a person & technician without reservation.

Ben Dobyns, CEO, Zombie Orpheus Entertainment Inc. and The Fantasy Network Corp/ Bellingham, WA USA.

www.zombieorpheus.com. RE: HAWKE ROBINSON, 11 August 2020

To Whom It May Concern,

I am writing today to offer my unequivocal endorsement of Hawke Robinson's skills. A high-level corporate officer for many years, Mr. Robinson subsequently dedicated many years of his life to building a global non-profit that has advanced research in its field by significant margins, as well as helping countless individuals with cutting-edge trauma therapy. As the founder of a successful tech startup, The Fantasy Network, I credit our success to the enterprise-level knowledge, support, & experience that Mr. Robinson brought to our company. His ability to design well-documented, scalable solutions that meet new & emerging needs is a gift to whomever hires or contracts him. It is clear from the quality of his work, his dedication, & his commitment that Mr. Robinson has, during his tenure running a non-profit, not only retained the technical & communication skills that make him a phenomenal executive hire but has also grown as a leader & visionary. There are very few who possess not only the ability to execute complex technical tasks, but the high-level "soft" knowledge that maintains team cohesion, communication with non-technical partners, & essential support in investor pitch meetings. Mr. Robinson is one of them.

Sincerely, Ben Dobyns.