
Technology and Software Engineering Management

*15+ years' success leading global product, software/solutions development, and pre-sales engineering support teams.
Innovative Transformational Leader | Multi-Industry Experience | AI & SaaS Expert | Generative AI | DevOps, AIOps, SRE & Cloud Technologies*

[Technology Profile and Portfolio williamcollins.devfolio.site](http://williamcollins.devfolio.site)

Strategic/Innovative thinker. Able to articulate vision - and effectively impart that vision to others. Hands-on, Transformational Leader with repeated success guiding global business strategy within both established and emerging organizations. Talent for managing and launching products and programs related to hardware, software, data, pre-sales, and service solutions. Expert presenter and business professional; able to forge solid relationships with strategic partners. Innovative manager skilled at building top-performing teams, analyzing technology and market trends; scaling and growing businesses. Also, excellence in Engineering Organization, Technical and Professional transformation, and maturation.

Possesses a broad technology skillset but currently focused on leading edge technologies including AI, AIG (AI Generative) and associated technologies, modern SaaS Web App Development, API, microservices technologies and implementations, Kubernetes/Containerization, DevOps/AI/MLOps, SRE, AI/Machine Learning/NLP/Computer Vision, IoT/Edge/FOG computing.

Industry experience in Insurance/Banking, Manufacturing, Marketing/Digital Agency/MarTech, Legal, Manufacturing, FinTech and Automated Business Processing Industries and Applications including associated cloud service technologies and platforms: AWS, Azure, AWS, Oracle, GCP, Heroku, SaaS, PaaS, IaaS, and DaaS. Deep understanding of modern programming languages, platforms and Dev, DevOps, AI/MLOps, SRE, Observability, Tools/code including but not limited to Python, C#, Java, Node, React, Flask, Django, FastAPI, GraphQL, Kafka, Sonar Cloud, DataDog, TeamCity, Cypress, PyTest, Jest, CircleCI, Kubernetes, New Relic, Amazon CloudWatch. Experienced in state-of-the-art SDLC methodologies including converged DevOps/AI/MLOps, CI/CD, Scrum, and Agile, modern observability tooling e.g., Prometheus, OpenTelemetry, Grafana and physical deployments. Big data platform and pipelines.

Highlights of Expertise

- Management: Global Technical Team Leadership (15+ years)
- AI, AIG (AI Generative), Web App Development: SaaS Cloud and Hybrid solutions
- Software Development, Architecture and Platforms/Frameworks
- RESTful APIs /GraphQL/ Microservices
- Product, Program and Project Management
- SDLC/STLC - CI/CD, (Dev/ML) Ops, SRE, Kubernetes, Observability/Tooling, Test Automation
- AI/Machine Learning - Computer Vision/Object Detection/Classification/NLP
- IoT/Edge IoT programming, embedded AI/ML, Sensors/Actuators
- Technical Pre/Post-Sales Support

Career Experience

Alkemie Technologies LLC

Delivery of integrated, AI Generative Platform and Enterprise Solutions, SaaS Web App Products, APIs/microservices Systems Design and Architecture and Development for multi-industry deliverables include AI/ML, Natural Language

continued...

Processing (NLP), Computer Vision/Image Classification, Sentiment Analysis/Text Classification, Geolocation, and mapping, RESTful/GraphQL.

VP Engineering (January 2023 to Current)

- Technology visionary for company. Responsible for managing and improving efficiency of engineering team and internal support for the systems and architecture of company
- Anticipate new technology including incorporation of AIG within engineering team across organization to ensure marketplace relevancy competitive advantage. Responsible for understanding and determining monetization strategies via data analysis, assessments, prototype generation and testing, including required changes to the system architecture.
- Ensures technological decisions address business strategy including balancing innovation with the existing deliverables commitments and timelines, architecture and capabilities. Ensure ideation is vetted and executable with the current systems and talent in place – expands capability within budget in order to maximize ROI.
- Acting External Facing Technologist representing the product to clients and making pivotal decisions regarding delivering differentiate, disruptive technologies to market without disruption of overall delivery of product(s). Tracking technology performance metrics and assessing internal and external impact and making decisions about the overall direction of the company.
- Design and Delivery of Customer Solutions focusing efforts across Dev, DevOps, SRE, AI including solutions for AIG integration for streamlined automation leverage of AIG as another tool to enable automation solutions for customers on at least 2 fronts: Rapid deployment and dynamically adjustable semi-customized AI driven apps combined with rapid integration of customer specific data (structured/unstructured) into AIG to provide customer business specific insights.

PFL.com

Responsible for the organizational engineering efforts supporting the growth of a Marketing Technology SaaS (Software as a Service) company that continues to pioneer and lead the Hybrid Experience category. Efforts include technical design, development through implementation and monitoring of all applications that facilitate effective interaction with our customers and support efficient business process and operations. Supporting managed/hands-on technologies include Azure, Python, C#/.NET, APIs, DevOps/Kubernetes, AIOps/ML, SRE. Terraform, React, no and SQL DBs used to support MarTech SaaS/Hybrid/Manufacturing and Inventory Management environment

VP of SOFTWARE ENGINEERING (May 2022 to Dec 2022)

- Improved processes and team structure supporting accelerated delivery of MVP to market in 4 months.
- Migration of on-prem legacy code leveraging microservices/cloud infrastructure
- Move from REST to GraphQL to increase code speed/efficiency. Also move from legacy angular to React frontend.
- Leverage of Kubernetes orchestration to automate/accelerate build/deployment.
- Delivery of Cloud (Azure) app consolidation plan that reduced costs by ~\$50K per month.
- Implemented/Executed initiatives across Dev, QA, SRE and Data Maturation Models resulting in:
 - QA maturation level of ~1.6 to 3 and Automation from zero to 54% in 6 months.
 - SRE team/Ops from maturation level of ~1.8 to 3 out of 5 in 4 months including introduction of advanced AI features.
 - Data/AI/ML: Delivered multi-threaded, cloud-based pipeline and process to deliver E2E build of ML models including real-time data capability, actionable insights.

Alkemie Technologies, LLC

Delivery of integrated, Generative AI Solutions, SaaS Web App Products, APIs/microservices Systems Design and Architecture and Development for Insurance, Banking, Digital Agency Web Applications. Deliverables include AI/ML, Natural Language Processing (NLP), Computer Vision/Image Classification, Sentiment Analysis/Text Classification, Geolocation, and mapping, RESTful/GraphQL Weather/Astronomy products and integrations, microservices. On-premise, Hybrid and Cloud-based Solutions. Also, development of AI-embedded IoT edge devices connected to cloud-based SaaS applications.

VP of SOFTWARE ENGINEERING (August 2019 to April 2022)

- Design and Delivery of Customer Solutions focusing efforts across Dev, DevOps, SRE, AI including solutions for Generative AI (AIG) integration for streamlined automation leverage of AI as yet another tool to enable automation solutions for customers on at least 2 fronts: Rapid deployment and dynamically adjustable semi-customized Prompt Engineering driven apps and rapid integration of customer specific data (structured/unstructured) into Generative AI platforms/Microservices to provide customer business specific insights.
- Delivery and Execution of initiatives addressing QA, SRE, DevOps and, AI/MLOps Model Maturation, Architectural improvements including leverage of Microservices, Front-end/Backend performance improvements, Focus on enhanced Security, Technology/Monitoring Maturation, and Innovation. Delivery of multi-tenant Geo application that includes custom algorithms, multiple real-time RESTful calls: geo-location, weather, astronomy, solunar data to perform predictive weather/tide/astronomical analysis. Solution supported by API product also delivered as additional monetized product.
- Development of Python/Flask/FastAPI and Node web applications and APIs, PHP Applications, Microservices for Windows, and Linux systems. Integration with MySQL, Postgres, Maria DB, Mongo DB, and other SQL/no-SQL Databases. Implementation of React/Hooks, Node API, Redis/Postgres/CouchDB (noSQL/JSON) Solutions, DevOps, and Infrastructure (primarily AWS, Azure, Heroku). SDLC, DevOps and Application Monitoring e.g., PyTest, Jest, CircleCI, New Relic, Amazon CloudWatch, DataDog, GitHub Security.

Oracle, Austin, Texas

Driving innovation with, and for customers looking to build in the Oracle Public Cloud - specifically Information Management, Predictive Analytics including supporting AI (Machine Learning, Image Capture and Classification), IoT and Chatbots. Also, building the next generation workforce at Oracle, and developing new capabilities with a focus on agility, scale and showing the 'art of the possible' with the Oracle Public Cloud. Supporting managed/hands-on technologies include AWS, Django/Python, Java, DaaS/IaaS/PaaS, APIs, Terraform, React, no and SQL DBs.

SENIOR DIRECTOR of CLOUD INNOVATION & SOLUTION ENGINEERING (June 2018 to August 2019)

- Scaled (by 1100%), Trained and Mentored Solution Architect team. Oversaw technical software development teams and off-site support service.
- Worked with Ops team to guide and help deliver and Automated Reporting process that improve time-to-delivery by approximately 800%
- Improved relationships, process, and operational efficiency globally within Hub, Field/Internal sales, Oracle Consulting Group

Retriever Services LLC, Austin, Texas

Provide senior-level leadership for Austin-based startup with full accountability for and direct management of technology initiatives: Software and Solution Development, Information Security, Enterprise Integration, and Data Center Virtualization. Supporting managed/hands-on technologies include AWS, Python, APIs/Microservices, React, Postgres/other DBs.

VP of ENGINEERING AND DEVELOPMENT (2016 to 2019)

Direct all corporate operations encompassing multiple platforms and services including microcomputer based IoT sensor network/other solutions, SaaS applications, security appliances. Leverage of AWS Cloud. Python, Node, PHP, JavaScript, Bootstrap, JQuery and modern, relevant tools/platforms for development, deployment, and monitoring.

- Oversee technical software development teams and off-site support service.
- Create operational process and toolset for startup services and software development programs.
- Deliver Commercial Solutions for Classified (CSfC) architecture for Federal sales partners.
- Architect and Deliver Internet of Things (IoT) software and hardware solutions.

Dun and Bradstreet, Austin, TX

Established state-of-the art enterprise solutions. Oversaw platform architecture, demo development and pre-sales engineering support for Data as a Service (DaaS/REST API), SaaS, PaaS, e-commerce, advertising, and subscription products. Leverage of AWS Cloud, Java, Python, .Net, Node, MongoDB, Angular, React and relevant platforms/tools.

SENIOR DIRECTOR, PLATFORM SOFTWARE DEVELOPMENT (2014 to 2016)

Normalized programming languages and architectures to responsive front-end, modular OOP back-end architecture. Improved process documentation of use and test case automation. Implemented JIRA/KanBan, Confluence, Git, etc. and supplied overall process improvement.

- Decreased defects by 97%.
- Increased testing automation by 340%.
- Implemented common platform solutions for Search, Identity Management, Monitoring, Corporate Linkage, and other core technologies reducing cross-product redundancy and development complexity by at least 420%.

LaunchWorks, Boerne, Texas

Supported complex projects and client relationships in business intelligence and portal technologies. Supporting managed/hands-on technologies include AWS, Java, PowerBI, APIs/Microservices, MS MVC, React, .NET, C#/Python, no and SQL DBs.

VP of SOFTWARE DEVELOPMENT (2013 to 2014)

Managed both technical and sales staff of small startup. Migrated Java and .Net Business Intelligence products from non-modular to object oriented modular framework; delivered on premise, and cloud/SaaS-based embedded solutions. Implemented agile development process, unit/product/system test and code review.

- Reduced defect escapes by 117%.
- Improved customer satisfaction from 37% to 92% based on Net Promoter score.
- Increased company revenue by 212%.

Dell Inc., Austin, Texas (Total of 13 years in various roles), Round Rock, TX

Managed development, integration, testing, and pre-sales support for multiple hardware, software and services solutions.

Supporting managed/hands-on technologies include AWS, Python, APIs, JavaScript, MySQL and other RDMS's. IC roles and Management roles across Dell Product Group/Engineering, ERP Solutions, Service Desk Solutions, Solution Engineering, pre- and post-sales of over 20+ global solutions across all Dell business verticals including Biomedical/Healthcare, Education, Local/Fed Government, Law Enforcement, Banking and Financial, across Large Enterprise, SMB, other businesses.

REGIONAL DIRECTOR, HW/SW SOLUTION DEVELOPMENT AND PRESALES SUPPORT (2009 to 2013)

Startup of Dell Solution Global Solution Centers including the design, architecture, and simultaneous development/delivery of 20+ solutions across all Dell Industry verticals and contributing to \$548M global revenue. Scaled and managed global team from inception to 60+ hardware engineers, software developers and solution architects and managers:

- Reduced time-to-market for twenty industry solutions by 52%, increased market share by 40% with corresponding revenue of \$600 million.
- Launched six cutting-edge customer service facilities in Austin, Chicago, Washington DC, New York, California, Ireland, India, Brazil, and Mexico. Supported smaller Solution Centers in Panama, Chile, and Argentina.
- Implemented a customer engagement process which delivered over 1800 briefings, workshops and proofs-of-concept contributing to \$200+ million in revenue.

ADDITIONAL EXPERIENCE (WHILE EMPLOYED BY DELL/EMC)

Director, Global Enterprise Solutions Development (2007 to 2009) Global Enterprise Solutions, Dell, Inc., Round Rock, Texas. Global Product architecture and delivery of ERP Oracle, PeopleSoft, Siebel products/solutions per customer specifications contributing to \$100M Americas and \$400M global revenue.

Senior Development Manager Global Product Development and Managed Services (2006 to 2007) Dell, Inc., Round Rock, Texas. Delivery of twenty-three internal and customer facing Managed Services, Service Desk Capability products contributing \$80M in Dell global revenue.

Development Manager Global Product Development Group (2002 to 2006) Dell, Inc., Round Rock, Texas. Software Design, Development, and implementation of key software programs in Dell's enterprise product group.

Software Lead Global Product Group (2000 to 2002) Dell, Inc., Round Rock, Texas. Design and implementation of key hardware/software development programs in Dell's enterprise product group.

Education & Credentials

University of California, Irvine, California
BACHELOR OF SCIENCE – CHEMISTRY
MINOR - BIOLOGY

Professional Development: Continuous Study and Practice of: Management and Leadership. AI and leading-edge technologies. Global Distributed Management, Modern SDLC, DevOps, CI/CD, Scrum/Agile/Kanban. BPI (Six Sigma) Yellow Belt, Social Media Accreditation. Internet of Things (IoT) industry and development expertise leveraging SBCs, Python, Node and PHP programming. Big Data, Analytics, and AI/Machine Learning, Computer Vision/Detection/Classification and NLP).

Technical/Management, Experience & Proficiencies: Generative AI. Cloud App Development; Oracle, AWS, Heroku, MS Azure, Google (GCP). DevOps, Docker, Kubernetes (AKS), IoT, Information Management, Advanced Analytics, Integrated Hardware/Software Server Solutions, Network and Storage solutions, Secure VDI, HIED ERP/LMS/LIMS Energy/SMARTGRID, Connected Classroom/Next Gen Learning, Mobile Video Evidence Management and Video Surveillance, VDI/Private Cloud, Digital Forensics, Mobile Clinical Computing, Big Data. Linux, Windows, Salesforce Integration, Waterfall and Agile development environments, Object Oriented Programming, RESTful Web Services, Microservices, Mapping, Geolocation, MERN Stack MongoDB, Express, React, Node.js, Flask/Python, Jupyter Notebook. React, PHP, Java, C++, C, .Net, AJAX, JavaScript, Bootstrap, and JQuery. Sensor Networks, Single Board Computers, automated testing tools and environments, JMeter, JUnit, JIRA/Kanban, Confluence, SourceTree, VNC, Git, WAMP/LAMP, APIs, Microservices, Dynamically Scalable Systems (Cloud Elastic), Agile/Scrum/Kanban, AI/ML/Deep Learning, Neural Networks, Predictive Analytics (on-premise and cloud), Leverage of Data Science Libraries/Technologies, NumPy, Pandas, matplotlib/Seaborn, SciPy, Scikit-Learn, Scikit-image, Tensorflow, Keras, spaCy/NLTK, Gensim, Pydicom, MedPy, DLTK, MIRTk, SimpleTK, Pytorch, Keras, OpenCV. Testing and Monitoring tools: TestRail, SauceLabs, Confluent, Postman, Launch Darkly, Insomnia, Swagger, Jira, Confluence, Cucumber, Sonar Cloud, Jest (Unit Test), Selenium, C#/Python automation, Postman, Cypress

Current Areas of Focused Study: *Generative AI and the next generation of Software Development. Scalable, Sustainable Web App Development and RESTful API Development, HW/SW/Embedded Development, AI/ML/Deep Learning/Neural Networks; Image Classification, Computer Vision, Text Analysis (NLP), Algorithms; Cloud, Python/Flask/Django/FastAPI, Node, REST APIs, Microservices, DevOps, AI/MLOps.*

Interests and Affiliations:

- Generative AI. Innovation, Technology, Cloud, Web App System Design, Architecture and Programming, APIs, Microservices, AI/ML/NLP, IoT.
- IoT Planet, Member, IoT Council, HIMMS, HIE Watch, CIO Network, Data and Text Analytics Professionals
- Personal: Technology and Innovation, Avid Outdoorsman, Archery/Bow Hunting, Surfing, Fly Fishing/Fly Tying, Writing non-fiction/fiction