Bernhardt Dungan

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Senior Software Engineer

Infrastructure Tools | Build Systems | Scalable Tools | Software Solutions

PROFESSIONAL SUMMARY

Accomplished Senior Engineer with extensive experience in automating workflows and enhancing software reliability. Expertise in cloud infrastructure, containerization, scripting, and the full software development lifecycle (SDLC). Adept in DevOps practices, including build management, tooling, open-source vulnerability remediation, and version control. Proven success in leading global integrations for both traditional and microservice architectures, while optimizing software development processes through automation and continuous integration/continuous delivery (CI/CD) practices. Eager to leverage expertise in cloud-focused DevOps leadership for future roles.

- **Process Automation & Efficiency –** Developed and implemented automation tools that significantly improved system reliability and efficiency across complex cloud and on-prem environments, streamlining CI/CD pipelines.

- **Cloud & DevOps Expertise –** Advanced proficiency in cloud infrastructure and DevOps tasks such as containerization, version control theory, vulnerability remediation, and hybrid cloud deployments.

- **Awards –** IBM OTAA recipient, Recognized with numerous IBM Blue Points awards for providing expert solutions and helping peers overcome technical obstacles, reinforcing reputation as a go-to resource for build and deployment challenges.

AREAS OF EXPERTISE

DevOps | Software Development | Site Reliability | Build and Test Automation | Root Cause Analysis | IAM | IBM Cloud Linux | Windows | Virtualization | SCM (Github) | API Integration | Release Engineering | Agile Methodologies

WORK EXPERIENCE

Senior Software Engineer – DevOps Lead   **2018 – 2024**
IBM – Lowell, MA
Led DevOps for the Knowledge Catalog API team. Created and updated Jenkins and Travis builds. Managed IBM Cloud accounts, object storage, and IAM keys for build and test automations. Created tools for reporting Cloudant query results to slack. Oversaw automated deployments to IBM Cloud using kubectl and OpenShift tools to update, scale, and monitor deployments and secrets.

Cloud Infrastructure & SaaS Operations Leadership

- Designed and managed containerized applications using Docker and Helm, leveraging Infrastructure as Code (IaC) principles to automate deployment workflows. Provisioned Software as a Service (SaaS) applications on IBM Cloud, implementing chart templating to ensure seamless scalability and consistency across multiple geographic regions.

- Led SWAT meetings to diagnose SaaS outages, collaborating with availability managers and developers to resolve the problems. Contributed to root cause analysis for outages and provided opinions to prevent reoccurrence. Monitored deployments for real-time issues regarding performance, CPU utilization, disk usage, memory, and more.

- Supported a global development team of 20+ engineers to ensure new requirements, enhancements and bug fixes get delivered and deployed on SaaS every week and monthly for on premise releases. Collaborated with these teams to streamline build and deployment processes and improve overall efficiency and any automation needs.

CI/CD Pipeline Optimization & Version Control Management

- Managed Git branches and tags to streamline monthly on-premises release cycles, ensuring version control and deployment accuracy. Collaborated closely with developers to create, test, and deploy hotfixes on Red Hat Kubernetes OpenShift clusters, validating changes to deliver robust solutions for on-premises customers.

- Increased development velocity and reduced code duplication by consolidating build scripts and Dockerfiles of multiple different Node.js applications into a centralized reusable library.

- Oversaw the administration of Jenkins servers and nodes, configuring and maintaining Linux and Windows virtual machines to ensure seamless integration and optimized job execution. Managed user groups, plugins, and job configurations within Jenkins to ensure robust CI/CD pipelines and streamlined development workflows.

Build Process Automation & Secure Credential Management

- Streamlined build processes and bolstered security by creating a centralized Git repository for encrypted credentials, automating updates across 20 Travis builds. Established an efficient credential management system, eliminating the need for monthly manual updates and ensuring consistent security practices across all builds.

- Mentor to engineers and interns on various technologies and career development

Advisory Software Engineer   **2008 – 2018**
IBM – Littleton, MA

Led build and install development for data quality products working with multiple teams across geographies. Created build and test pipelines using Jenkins. Installed and administered Jenkins on Windows and Linux. Consolidated multiple build artifacts into cohesive payloads and defined install design and flow. Defined, created, and tested product patches.

- Led build and install development for data quality products working with multiple teams across geographies.
- Maintained Artifactory and Archiva dependency repositories, ensuring dependencies pass vulnerability scans and were up to date. Consolidated product builds while integrating them into an in-house developed build framework.

Product Recertification & Knowledge Transfer Leadership

- Ensured successful product recertification and on-time release by leading the C++ code update to implement SHA-256 encryption, resolving memory fragmentation issues on Windows through a strategic code update.
- Facilitated seamless knowledge transfer and empowered the partner team by creating a comprehensive standalone build package, providing technical guidance, conducting hands-on training, and performing code reviews, enabling the partner to independently take ownership of the IBM InformationServer plug-in.

Staff Software Engineer   **2004 – 2008**
IBM / Ascential Software – Westboro, MA

Designed custom real-time data quality applications – integrating with SAP and Siebel, optimizing data management and ensuring accuracy across enterprise systems. Integrated technologies and APIs into cohesive, high-performance systems.

- Served as a level-3 engineer and developer liaison, providing expert support to advanced and first-line teams to resolve critical issues related to data quality products. Assisted engineers and customers in navigating complex situations, ensuring rapid resolution and minimizing downtime, thereby maintaining operational continuity.
- Drove multimillion-dollar sales and successful productization by volunteering to travel to a large European customer site, leading a full-stack development effort to integrate new search technology, redesign the UI, and complete a critical implementation.
  - As a direct result of this full-stack development project, increased customer satisfaction and secured contract sign-off, and the subsequent sale of the features to multiple customers, generating significant sales.

Software Engineer   **2004 – 2004**
Intrusic – Waltham, MA

- Led development of web UI written in java replacing RMI with jsp and pure java sockets
- Worked with backend/database engineers to define the data structures and protocols used to retrieve data.
- wrote intrusion detection check plugins for the backend server in C++.

Developer Support Engineer   **2002 – 2004**
Microsoft / Groove Networks – Beverly, MA

Delivered a seamless integration solution for a customer using Apache backend infrastructure by providing technical guidance, code examples, and defect reproduction support – leveraging the Apache:ASP module with mod_perl.

- Provided first-line support to partner developers, resolving technical queries and troubleshooting issues promptly to ensure seamless development workflows and minimize disruptions. Moderated online developer forums, facilitating engagement and providing timely assistance to enhance collaboration within the developer community.
- Created code samples in C#, VB.NET, and JavaScript – helping developers streamline their existing workflow.

SKILLS

Languages:	Shell Scripting, Java, JavaScript, C / C++, VB, YAML, JSON, Perl, Python (Learning), Web technology (HTML/XML/JavaScript/JSP/Servlet)
DevOps Tools:	Jenkins, Travis, Docker, Kubernetes, Helm, and SonarQube
Build Tools:	Gradle, maven, npm, make/nmake, ant, and Rational Team Concert
SCM:	git / GitHub, Rational Clear Case, CVS, and RCS
Operating Systems:	Linux, Unix, AIX, MacOS, Windows, and MVS
Methodologies:	Agile, CI / CD, Software as a Service (SaaS), and Infrastructure as Code (IaC)

EDUCATION

Bachelor of Science in Information Science – Major: C Programming - Johnson & Wales University Providence, RI