

JASON ARNOLD

IT Senior Developer

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Knoxville, TN

SUMMARY

A skilled IT Senior Developer with over 20 years of experience in system migrations, automation, and software development across Unix, Linux, and Windows platforms. I specialize in optimizing IT infrastructures by migrating legacy systems to modern environments, developing custom automation solutions in C, Python, VBA, Bash, and more. My expertise includes troubleshooting and maintaining complex systems, improving performance and scalability, and streamlining operations through automation. In addition to my IT proficiency, I have extensive experience in laboratory environments, where I've automated data handling for GC, LC, and GCMS instruments and integrated LIMS systems to enhance efficiency. With a strong foundation in AI and data analysis, I am passionate about driving innovation through IT solutions that bridge technology and scientific operations.

EXPERIENCE

01/2017 - 01/2024

Folsom, CA

IT Senior Developer

Eurofins Environmental

- Maintained Target 3.5 application running on HP-UX 10.2 and migrated to CentOS 7.6 and Ubuntu 20, ensuring seamless operations for over 25 instruments across GC, LC, and GCMS platforms
- Led the migration of applications from HP-UX to Linux environments, significantly improving performance and scalability
- Developed automation scripts (C, Bash, Perl) to enhance laboratory efficiency, processing EPA methods such as TO-15, TO-17, and ASTM methods
- Ported legacy C applications to modern Linux systems, streamlining operations and reducing downtime for critical lab functions
- Rebuilt LIMS services, moving from Windows Server 2003 to 2019 using C# and .NET frameworks
- Provided IT and software troubleshooting for instrumentation, LIMS, and data management across multiple lab locations
- Automated Thermo systems, extracting needed information from raw data for seamless data processing
- Migration of Target 3.5 from HP-UX to LINUX, ensuring compatibility and performance optimization
- Developed EPA method automation for TO-15 and TO-17, integrating reports and LIMS data processing with custom scripts
- Redesigned the LIMS communication protocol, improving data transfer speeds and reliability between Unix and Windows systems

01/2013 - 01/2017

Folsom, CA

Senior Specialist

Eurofins Lancaster

- Maintained and developed laboratory automation systems using HP-UX and Linux environments, including migrating Target 3.5 applications to modern kernels
- Automated lab workflows for over 100 instruments, significantly increasing throughput by optimizing existing methods and automating data handling processes
- Provided advanced troubleshooting for hardware and software systems across GC, LC, and GCMS platforms
- Reduced manual intervention in instrument data processing by developing VBA and C-based scripts for data validation and LIMS integration
- Built custom automation for LIMS to handle multiple EPA methods, improving consistency and data accuracy

01/2009 - 01/2013

Folsom, CA

R&D Senior Scientist/Service Engineer

Eurofins Environmental

- Spearheaded the development of new methods for air analysis (TO-15, TO-17) and automated sampling systems, integrating hardware and software systems to enhance throughput
- Managed and automated data acquisition for GC7890 and Mass Spectrometer systems, ensuring continuous 24/7 operation
- Optimized sample preparation and analysis methods, leveraging programming skills to automate and refine laboratory protocols

01/2002 - 01/2009

Rancho Cordova, CA

Chemist II

California Laboratories Services (CLS)

- Led a team of chemists, enhancing productivity through automation of GC/FID and GC/MS processes by 25% and 15%, respectively, using custom scripts and macros in Chemstation
- Key developer in ethanol and gas pattern analysis, automating processes for GC and GCMS to handle complex sample matrices using macro coding

EDUCATION

2024 - 2025

Knoxville, TN

Masters of Computer Science

University of Tennessee

- Advanced Software Engineering
- Introduction to Azure
- Security - Programming and Analysis
- Artificial Intelligence

EDUCATION

1995 - 1999

Thibodaux, LA

BS in Mathematics

Nichols State University

- Minor in Chemistry
- Board of Regents Award
- National Honor Society in Mathematics (Pi Mu Epsilon, President)
- Larry S. Haw Memorial Award
- After starting at Sacramento State University, I transferred to The University of Tennessee to pursue a Master's
- In Computer Science, attracted by the university's strong focus on AI, deep learning, and machine learning
- Additional Training:
- Advanced HPLC Training
- Agilent Triple Quad MS/MS Training

SKILLS

Python	Javascript	SQL	Perl	VBA	Bash	Centos	Cordova	Data Quality	Data Validation	
Database Management		Deep Learning		Excel	Instrumentation		LIMS	Machine Learning		Macros
Mathematics	Microsoft SQL	Oracle	SQL Server		TOAD	Ubuntu	Unix	HP-UX	Linux	Windows
Windows Server	Microsoft SQL Server									