

Joshua Vargas

Senior Lead Product Developer / System Programmer

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EDUCATION

Master of Science in Computer Science

2012 | DeKalb, IL

Northern Illinois University

- Concentration in High Performance Computing

Bachelor of Science in Computer Science

2010 | DeKalb, IL

Northern Illinois University

- Concentration in Software Engineering

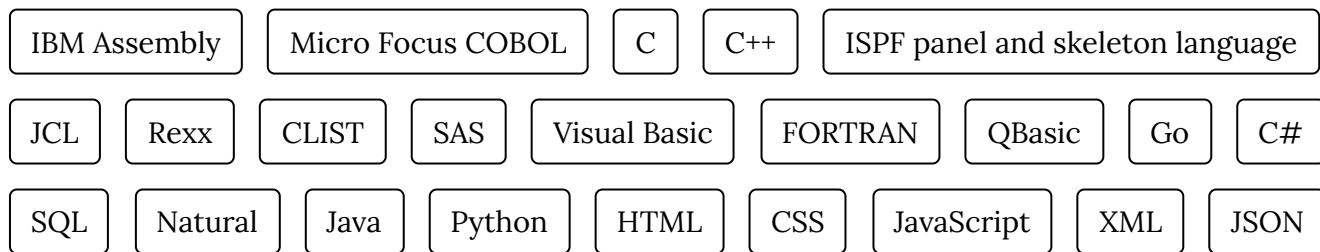
Associates in Science

2008 | Sugar Grove, IL

Waubonsee Community College

- Concentration in Computer Science

LANGUAGES



PROFESSIONAL EXPERIENCE

Senior Lead Product Developer for MainView for z/OS

Jan 2019 – present

BMC Software

- Performed level-3 development of features and supported code base for AMI Ops Monitor for z/OS (formerly MainView for z/OS), AMI Ops Monitor for USS (formerly MainView for USS), and AMI Ops Monitor for CMF (formerly CMF MONITOR) to create SMF 70 - 79 records (same as IBM RMF)
- Developed logic and algorithms for z/OS and hardware performance monitoring and reporting, through the use of IBM Assembly language, C, Java, COBOL, Rexx, CLIST, SAS, ISPF panel language, and ISPF file-tailoring language
- Experienced in MVS dumps (SVC dumps, SLIP dumps, formatted dumps, console dumps, stand alone dumps) analysis using IPCS to identify root cause of reported issues, such as abends, program checks, looping, high CPU consumption, short on storage (SOS), and other program related issues
- Experienced with TCB subtasking, preemptive and non-preemptive SRB scheduling, allocating and freeing local (private) and global (common) storage (CSA and SQA) in 24, 31, and 64-bit addressing mode with and storage key and subpools and cellpools, OMVS and Unix System Services (USS) file systems and mounts, using Name-Token-Pair (NTP), Global Resource Serialization (GRS), enqueues, dequeues, locks, latches, hooking into the Event Notification Facility (ENF), working with authorized and non-authorized programs, APF, linkage stack entries, cross-memory development with access registers, working with enclaves, reentrancy, using dataspaces, hiperspaces, and memory objects, Virtual Storage Manager (VSM) allocation, multitasking, STIMER, TOD clock, serialization with Event Control Blocks (ECBs), CHSC calls, DIAG 204 calls for CPU and PR/SM data, and other core operating system and hardware features
- Oversaw REST API development to support mainframe performance metrics reporting using Java servlets and a Tomcat web server, that hooked into z/OSMF
- Operated in an agile framework development environment, including sprint planning, backlog grooming, story pointing, sprint retrospectives, sprint reviews, and using Kanban boards with Jira
- Performed metric data gathering and processing to display to the end user by using operating system Application Programming Interfaces (APIs), Supervisor Calls (SVCs), Program Calls (PCs), and IBM/ISV utility program APIs
- Developed testing utility programs, in SAS language, for verifying updated or added fields to SMF records or to MainView records, in order to minimize and mitigate effort required for QA testing

Lead Product Developer for MainView for CICS/DB2/IMS

Jul 2017 – Jan 2019

BMC Software

- Developed features and supported code base for AMI Ops Monitor for CICS (formerly MainView for CICS), AMI Ops Monitor for DB2 (formerly MainView for DB2), and AMI Ops Monitor for IMS (formerly MainView for IMS)
- Developed logic and algorithms for middleware such as CICS, DB2, and IMS performance monitoring and reporting programs, with the use of IBM Assembly language, C, Java, COBOL, Rexx, CLIST, SAS, and ISPF panel language
- Developed and supported application timer Disabled Interrupt Exit (DIE) routines, threadsafe, multithreading, quazi-reentrant TCB (QR TCB), and abend recovery routines, such as ARRs, FRRs, ESTAEs, and ESTAIs
- Knowledgeable on using the z/OS Authorized Code Scanner (zACS) tool to discover and remedy vulnerabilities pertaining to SVC and PC calls within the program logic
- Facilitated root cause analysis of internally and externally reported complex support issues for any parts of the software stack, using methodical problem-solving techniques
- Experienced in utilizing WebSphere MQ to interface with CICS and IMS transaction managers
- Experienced with working with CICS Explorer, CICSplex System Manager, CICS Performance Analyzer, SMF type 110 records, transactions, regions, Basic Mapping Support (BMS) mapsets, screens, terminals, files, transient data queues, temporary storage queues, journals, Resource Definition Online (RDO), CICS domain gates, and kernel linkage routines for domain communication
- Worked with different types of CICS domains, such as: Transport-owning region, Terminal-owning region, Application-owning region, Data-owning region, File-owning region, and other types of regions
- Experienced with SPUFI and DB2 tracing for application SQL and stored procedure application development and debugging
- Experienced with working with IMS control regions, dependent regions, Message Format Service (MFS), IMS DB, recovery, and logging
- Developed code and created APARs and PTFs using source code management applications to maintain proper version control, such as Endeavor and ISPW
- Researched and reviewed IBM interface change notifications (ICNs) and Technical Disclosure Meetings (TDM / TDT) and worked within R&D team to determine what may be required to maintain toleration and/or gain exploitation of IBM software and hardware changes to the latest zSeries CEC

Storage System Programmer

Sep 2015 – Jul 2017

Texas Comptroller of Public Accounts

- Knowledgeable about working with financial services related to the Texas government accounting and finance departments, to include processing many forms of state taxes and payments
- Experienced in using IBM Copy Services Manager (CSM) to plan, monitor, and manage data-copy and replication operations using FlashCopy, Metro Mirror, Global Mirror, and Peer-to-Peer Remote Copy (PPRC)
- Familiar with I/O topology concepts to include Logical Subsystem (LSS), Channel Subsystem (CSS), Alias Management Group (AMG), Parallel Access Volume (PAV), FICON and ESCON channels, Logical Control Units (LCU), extent pools and ranks, Unit Control Blocks (UCB), Input/Output Definition File (IODF), Hardware Configuration Definition (HCD)
- Configured and managed dual-site active-active volume access and automated disaster recovery with HyperSwap environment
- Participated in annual disaster recovery drills along with the greater system programming teams
- Worked with DFSMSdfp to do storage management, tape mount management, data management, program management, device management, and distributed data access
- Worked with DFSMSHsm to manage automatic class selection (ACS) routines, backups, automatic deletion rules, migration / archive, recalling, GDG generation copies, and space management
- Worked with DFSMSrmm to manage shelf locations, volumes, data sets, information about volume owners, and software products in all libraries and storage locations
- Coordinated closely with database administrators (DBAs) to support relational (DB2) and hierarchical (ADABAS) databases
- Configured and managed PCIe virtual functions to include RoCE, ISM, zEDC, and zHyperLink
- Experienced in administering SMS and non-SMS managed volumes and data sets
- Performed device operations such as varying devices online/offline, initializing devices, and reserving volumes
- Experienced with ISMF to define and maintain policies for managing storage resources
- Performed VSAM file backup, restore, export, move and other operations using FAVER
- Worked to develop policies to help to improve the use of storage devices, and to increase levels of service for user data, with minimal effort required from users

z/OS System Programmer

Aug 2014 – Sep 2015

Texas Comptroller of Public Accounts

- Performed IPL of z/OS LPARs with use of automation programs such as AF/OPER and AutoOperator
- Opened support cases with IBM and ISVs, including sending SVC dumps and logs, for remediation
- Worked with workload schedulers such as CA-7 and Control-M, and job restart facility CA-11, in addition to CA View to store the job output for historical purposes
- Performed SAF gap analysis and risk assessment / management
- Performed operations relating to ICF master and user catalogs and aliases
- Experienced in installing, maintaining, and working with job entry subsystems to include JES2 and JES3plus
- Worked with RACF with use of zSecure and CARLa Auditing and Reporting Language (CARLa) to set proper security rules for access lists, security profiles, security database, and resource permissions based on installation standards
- Performed operations relating to USS file systems and other OMVS operations
- Experienced in disaster recovery concepts, procedures, and protocols
- Familiar with tuning system using PARMLIB customization
- Performed root cause analysis problem determination of z/OS operating system related issues
- Regularly worked with link-list, LPA-list, APF-authorization, and SVC installation
- Updated WLM policy to maintain an ever-increasing effectiveness and efficiency of how workloads are being managed
- Configured and maintained coupling-facility and structures, along with parallel sysplex components, including couple data sets (CDS), Sysplex Services for Data Sharing (XES), and Cross-system Coupling Facility (XCF)
- Performed real-time system monitoring and reporting, capacity planning, system tuning using tools such as SDSF, IOF, and (E)JES
- Installed and used the IBM Sub-Capacity Reporting Tool (SCRT) to generate traditional sub-capacity reports, multiplex reports, and Tailored Fit Pricing for IBM Z for monthly billing reporting
- Managed and planned upgrades, updates, installations, and maintenance of z/OS operating systems and ISV software programs using SMP/E, as well as SYSRES cloning

Senior Software Engineer

Mar 2012 – Aug 2014

PKWARE

- Worked on R&D team in developing compression (PKZIP) and encryption (SecureZIP), using zEDC, applications
- Developed logic and algorithms for compression, encryption, and key management, with the use of IBM Assembly language, C, C++, Micro Focus COBOL, Rexx, CLIST, ISPF panel language, and ISPF file-tailoring language
- Developed for data discovery application, in C++, REXX, and ISPF panels, that processed SMF records, scanned and parsed IBM Assembly, COBOL, and C source listings, and stored relevant data necessary to scan for sensitive data to be masked
- Developed encryption and key management features that interacted with SAF and other external security managers (RACF, ACF2, TSS)
- Provided strong problem-solving and decision-making skills for software solutions that could be scaled based on client needs
- Worked with system and performance monitoring programs such as Omegamon
- Participated in request-for-enhancement (RFE) and user requirements meetings in order to transform client needs into application architecture and design
- Collaborated with development and QA team members to maintain and improve upon product quality by reviewing product code changes and providing relevant feedback
- Mentored new R&D team members with technical support of programs in product group

Software Engineer

Jun 2010 – Mar 2012

PKWARE

- Communicated with documentation writers to compile clear, timely, comprehensive, and accurate documentation and reports for new or updated technical documentation of product manuals
- Developed and maintained REXX applications, to include system REXX, and ISPF panels
- Modernized the construction of JCL for source code compilation, assembly, and linkage editing with the use of ISPF file-tailoring language
- Worked with source code management applications to maintain proper version control, such as ChangeMan and Git via the use of Zigi
- Developed and maintained DB2 COBOL stored procedures, as well as native SQL, for data discovery application repository
- Experienced using IDCAMS, IEBGENER, IEFBR14, DFSORT, SYNC SORT, IEBGENER, ISRDDN, ISRFIND, QuickRef, File-Aid, File-Manager, JCLPlus+, Pivotor, ISMF, VTAM, and other IBM/ISV utilities
- Strong knowledge of Jira, Confluence, Salesforce, ServiceNow, Slack, Webex, and Microsoft 365 programs

MILITARY EXPERIENCE

Infantry Machine Gunner

Jun 2003 – Jun 2007

United States Marine Corps

- Completed two deployments in the combat theatre of Iraq in support of Operation Iraqi Freedom, where I completed over 300 combat related operations
- Expertise in working in fast-paced, challenging, hazardous, and high stress work environments
- Assisted in the development and training of junior Marines in infantry operations
- Held billet of Vehicle Commander where I was in command of Marines during infantry operations

MILITARY AWARDS

- Purple Heart Medal
- Iraq Campaign Medal
- Combat Action Ribbon
- Sea Service Deployment Ribbon
- Marine Corps Good Conduct Medal
- Certificate of Commendation
- National Defense Service Medal
- Global War on Terrorism Service Medal
- Global War on Terrorism Expeditionary Medal