

Joseph C McDade

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Education **Rock Valley College** **Jan 2005 - Dec 2008**

- Associate in Applied Science - AAS, Criminal Justice with honors
- Credits earned: 69

Community College of the Air Force **Sep 2010 - Apr 2013**

- Associate in Applied Science - AAS, Information Systems Technology
- Basic Training: 21 Sep 2010 - 19 Nov 2010
- Tech School: 20 Nov 2010 - 24 Mar 2011
 - Focused on System Administration including:
 - Windows, UNIX, and Linux server installation and configuration
 - Windows Domain Controller creation
 - Using Active Directory to manage rights and permissions
 - Windows Exchange Server creation and management
 - VMware virtual machine deployment and management
 - SQL database management
 - HTML page creation
 - File sharing services CIFS/SMB/NFS
 - Script creation in Windows batch and UNIX shell
 - Information Fundamentals Basic
 - Apprentice Cyber Systems Operations
 - Security+ Cyber System Operations Certification Course
- GCCS-J Advanced System Administration: 20 Jun 2011 - 1 Jul 2011
- Initial Qualification Training for System Administrators in an AOC: 3 Jan 2012 - 27 Jan 2012

Northern Illinois University **Jan 2015 - Dec 2018**

- Bachelor of Science - BS, Computer Science with a minor in General Mathematics
- Graduated Summa Cum Laude with Upper Division University honors
- Emphasis on computational software and machine learning
- Learned proficiency in C/C++, Python, PHP, SQL, HTML, and shell scripting
- Planned and configured SQL databases using ER Diagrams and Normalization
- Planned creation of software for clients using Unified Modeling Language (UML), including:
 - Assessing functional and non-functional requirements for client's use case
 - Project management
 - Project timeline planning using Gantt charts to present timelines in a logical, organized fashion
 - Project Cost Benefit and Return on Investment analysis
 - Planning database objects and methods using Class Model Diagrams

- Creating Use Case models
- Created intuitive user interfaces
- Authored unpublished honors capstone research paper using machine learning techniques to predict reproducibility of research papers
- Co-authored paper published in the *Journal of Computing in Higher Education* using network modeling to look at the interaction of participants in a MOOC. Paper is titled, *The nature and level of learner–learner interaction in a chemistry massive open online course (MOOC)* and its DOI: <https://doi.org/10.1007/s12528-017-9144-2>.
- Credits earned: 147

Professional Certifications

- CompTIA Security+

Professional Courses

- NetAPP Data ONTAP: 1 Aug 2011 - 6 Aug 2011
- Combat Information Transport System (CITS): 10 Sep 2012 - 24 Sep 2012
- Local Registration Authority (LRA) Training: 16 Sep 2013 - 20 Sep 2013

Security Clearance

Current: Clearance for Top Secret Information and granted access to Sensitive Compartmented Information (TS/SCI) based on single scope background investigation completed on 12 Jan 2018.

Professional Experience

US Air Force Active Duty - 3D0X2 Sep 2010 - Sep 2014

- Attended Basic Training and Tech School: 21 Sep 2010 - 24 Mar 2011
- Stationed at Barksdale AFB, LA with the 608th ACOMS: 25 Mar 2011 - 21 Sep 2014
 - Performed duties as cyber systems operator assigned to TBMCS office
 - User account management including: creation, deletion, assigning of rights, assigning of permissions, creating storage quota for home drive and user profiles
 - Served as focal point for troubleshooting issues on multiple operating systems including Windows Server 2000/2003, Windows XP, Windows 7, and Solaris 8/10
 - Applied security and maintenance updates to Falconer weapon system
 - Performed daily and weekly checks to maintain the weapon system
 - Reduced time needed for daily system checks by modifying SOP to enable checking of all UNIX systems at one time, replacing the previously inefficient method that required logging on to each individual UNIX system.
 - Created and implemented backup and recovery strategies for core servers, done at minimal staffing levels, making use of imaging

software for Windows servers and Solaris FLAR for UNIX based servers.

- Participated in recovery from Microsoft Exchange server hardware failure, downtime was minimized due to ease of recovery from backups of Exchange and connected systems.
- Developed air picture delivery solution from GCCS-J to Google Earth for AF Global Strike Commander. Solution allowed JFACC to view current mission status of assets from his office in a remote building.
- Created and maintained TBMCS Windows client master image
- Deployed Windows clients using automated network based tools
- Created automated tools for mandatory password changing on core servers. Developed SOP's for implementation of tools.
- Identified inefficiency with trouble ticketing system based in Microsoft Excel only allowing one help desk user at a time to modify tickets. Created a solution using Microsoft Access.
- Performed duties as cyber systems operator assigned to GCCS-J office
 - Executed upgrade of suite and implementation of new GCCS-J Integrated Imagery and Intelligence (I3) capabilities
 - Leveraged knowledge of ZFS during GCCS-J I3 installation to avoid downtime by correcting error in upgrade documentation and changing filesystem allocations
 - Fortified defensive posture by creating SSH keypairs for secure login of Solaris servers
 - Used scripting knowledge to automate basic administration maintenance tasks allowing for reduced downtimes and faster recovery from outages
 - Coordinated with outside organization STRATCOM during maintenance and updates of two way communication links. Increasing stability of channels transmitting and receiving critical mission data.
- Deployed to 609th EACOMS: Oct 2012 - May 2013
 - Created Windows 7 master client image for Secret and Secret/Rel enclaves
 - Served as focal point for a group of airman part of a tiger team for deployment of Windows 7 clients replacing all previous Windows XP clients. Updating machines to latest Operating System (OS) release greatly reduced vulnerability of network.
 - Created alternate automated deployment method for installation of new or updated software in the event that Windows System Center Configuration Manager (SCCM) failed to properly deploy package. Developed SOPs for use of software deployment tool.
- Deployed to 609th EACOMS: Jan 2014 - Jul 2014
 - Created automated reboot script giving users hours of advanced notice and the option to reboot at anytime before
 - Updated and maintained Windows client master images

- Troubleshoot multiple issues with different software applications across multiple OS platforms

Illinois Air National Guard - 3D0X2

Sep 2014 - Present

- Traditional Guard Member of 183rd ACOMF with AFSC 3D0X2 - Cyber Systems Operator: 21 Sep 2014 - Present
- Assisted in update of GCCS-J system during RE in 2014
- Performed periodic password maintenance tasks
- Used previous experience to assist in troubleshooting of problems, diagnosing failure by isolating sources of issues with deployment of new Windows client master image
- Participated in Cyber Defense Competition April 2018 at Argonne National Laboratory representing 183rd Wing. Learned network penetration testing tools furthering knowledge of network security techniques.
- Deployed to 609th EACOMS: Jul 2016 - Jan 2017
 - Performed daily and weekly system checks
 - Created a parsing tool in PowerShell used to automate a weekly backup task that produced a list of all active and disabled users on domain saving 4 manhours a week
 - Modified my parsing tool for use by the helpdesk to identify over privileged users and keep track of administrator accounts
 - Created tool for parsing security vulnerability scans by computer name. Produced easy to read output organized logically with tabbed structure grouped by areas of responsibility
 - Assisted in planning and deployment of database schema on new Windows 2016 based SCCM server
 - Created PowerShell script set as computer level Group Policy Object automating unobtrusive reboot.

Additional Skills

- Windows XP/7/10 client administration
- Windows Server 2000/2003/2008/2012/2016 administration
- Windows Active Directory and Group Policy Object (GPO) management
- Windows SCCM package creation and deployment
- Solaris UNIX 8/10/11 administration
- Ubuntu Linux server administration
- RHEL 6/7 server administration
- Microsoft Office Suite
- Microsoft Access Databases
- Web design
- Proficient in C/C++, PHP, Python, HTML, CSS, SQL, bash, batch, and PowerShell