

JUSTIN SINGH-MOHUDPUR

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EDUCATION

University of California, Santa Barbara

September 2019 - Present

Applied Mathematics, B.S.

Spatial Science, Minor

Merced College

August 2016 - June 2019

TECHNICAL STRENGTHS

Certifications Security+, VCP-DCV (*in-progress*)

Languages Java, Python, R, PowerShell, SQL, MATLAB, LaTeX

Systems Windows, Debian, RHEL

WORK EXPERIENCE

United States Air Force Reserve

October 2016 - Present

Network and Systems Administrator (Security)

- Deployed, configured, and maintained VMWare technologies such as ESXi, vSAN, and vCenter.
- Configured switching/routing services for Cisco and Dell appliances.
- Managed Active Directory services supporting enterprise infrastructure (group policy, account management)
- Responsible for researching, installation, maintenance, and monitoring of security solutions such as: Windows 2012R2 security servers (Nessus/ACAS, Host-based Security System), firewalls (ForcePoint NGFW, Palo Alto Networks), McAfee Web Gateway, and signature based IDS systems (Snort).
- Created and maintained automated initial system setup via PowerShell/Bash.
- Implemented public key infrastructure (PKI) authentication methods compliant with DOD requirements.
- Utilized Remedy for ticketing day-to-day operations for Tier 1 support.
- Ensured software licensing and time-compliant technical orders from AF/DISA were accomplished.
- Managed inventory and maintenance of Information Technology equipment infrastructure-wide.
- Developed system documentation program and operations contingency procedures from no previously existing documentation/procedures.
- Developed and performed mitigation plan and performed remediation activities based on the findings to resolve network and system vulnerabilities to meet DOD compliance requirements.
- Managed and integrated several projects with cumulative equipment worth of \$1.2M.

PUBLICATIONS / RESEARCH

University of California, Santa Barbara

October 2020 - Present

Research Assistant

- Research assistant to a PhD candidate in the Department of Geography at University of California, Santa Barbara.
- Developed Stochastic Gradient Boosting machine learning model for predicting coefficients of synthetic rating curve formulations for all 2.7M documented CONUS river reaches.
- **Publications:**
 1. Johnson, J.M., Eyelade D., Clarke K.C, **Singh-Mohudpur, J.** (2021) "*Characterizing Reach-level Empirical Roughness Along the National Hydrography Network: Developing DEM-based Synthetic Rating Curves.*"