Joelle Tori Maslak

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Technical Leader · Network Engineer

GitHub: jmaslak
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Network engineering and cloud computing professional with leadership and people-management experience. Experienced with designing, developing, and managing complex systems in the cloud-scale, enterprise, telecommunications, and government sectors. Technical background includes network protocol development, database management, network engineering, information security, devops, network operations and software engineering. Management background includes customer-focused management of Network Operations Center (NOC), network engineers, and IT support staff. Leadership experience includes leading teams consisting of operations personnel, IT support staff, network engineers, and tradespeople. Strong believer in the power of diverse teams.

Skills

Soft Skills	Technical Writing, Public Speaking, People-Management, Global Teams, Diversity & Inclusion
Technical Domains	Network Engineering/Architecture, Information Security, Devops, Software Engineering, IT and Network Operations, Embedded Software
Tools and Languages	Python, Git, SQL, C, Raku, Perl, MS .NET, Puppet, LaTeX
Networking	BGP, IS-IS, OSPF, IPv4/IPv6, DNS, VoIP, Routing Switching, Firewalls, DNS, DHCP, LDAP
Vendors and OSes	Arista, Cisco, Juniper, Linux, Microsoft Windows, Apple OS X

Technical Experience

Senior Network Engineer   Feb. 2019 — Present
Netflix   *Remote*

- Automate router and switch configuration using Python and internal management framework tools
- Manage day-to-day operations of Netflix backbone, peering connectivity, and internal corporate hand-offs
- Optimize network monitoring system to provide visibility into network reliability, incidents, and performance
- Implement router and switch configurations for Arista and Juniper devices
- Respond to streaming incidents and perform deep-dive analysis of quality of experience impacts
- Actively support diversity and inclusion initiatives, through cross-functional work with executive management, human resources, and content/creative teams

Lead Network Engineer (Previously Senior Network Engineer)   July 2011 — Feb. 2019
CenturyLink / Former Level 3 Communications   *Broomfield, CO*

- Collaborated with operations, development, sales, customer support, and other teams to transfer knowledge and support content distribution network (CDN)
- Improved efficiency throughout 150+ site, 15,000+ server, world-wide, top-tier CDN
- Provided expert advice to other business units about internet structure and interconnection, with focus on optimization of content delivery across multiple peer, customer, and transit networks
- Develop custom custom BGP route collector (including implementation of BGP protocol at the byte level) and processing infrastructure to allow third party ISPs to signal content delivery preferences
- Lead system engineer for CDN DNS global load balancing and rendezvous system

Consultant (Part-Time)   Apr. 2012 — Feb. 2013
Director of Information Technology   Oct. 2009 — June 2011
Senior System Administrator   Dec. 2008 — Oct. 2009
Local Matters, Inc.   *Denver, CO*

- Promoted from Senior System Administrator to director of information technology team
- Managed Information Technology department, including oversight of IT staff, planning, and direction
- Mentored team members in technical skills, such as Unix/Linux, Apache, Perl, and networking
- Managed vendor relationships for IT equipment and services, optimizing for cost-savings
- Extended configuration management environment to create full audit capability for system administration work, utilizing Puppet
- Developed custom on-demand portal to allow development and QA organizations to start and stop new AWS instances as necessary
- Installed and configured multi-site storage area network based on NetApp appliances

Network Engineering and Operations Supervisor   May 2008 — Dec. 2008
Database Administrator   May 2004 — May 2008
Information Security Engineer (PKI)   Oct. 2001 — Apr. 2004
State of Wyoming Dept. of Administration & Information   *Cheyenne, WY*

- Promoted to network management from senior technologist position based on technical skill
- Managed staff responsible for architecture, engineering, and operations of the State of Wyoming executive branch network, including network engineers, low voltage electricians, and network operators
- Oversaw 24x7 support of State network functions

- Responsible for annual budget including salary, hardware, support, and circuit expenses
- Participated in state-wide technology leadership committees
- Partnered with judicial, legislative, and educational counterparts, to provide cost-savings to the State's four independent government branches
- Wrote policies and procedures for Public Key Infrastructure (PKI), including initial development of Certificate Policy, practices documentation, and technical documentation with goal of Federal PKI (FPKI) integration
- Created State of Wyoming border security architecture, utilizing Checkpoint firewalls and VPN edge devices
- Implemented distributed intrusion detection system (IDS)
- Developed initial architecture for Wyoming E-Government initiative's single sign-on (SSO) system for citizens and employees
- Participated in budget and rate-setting processes
- Managed and optimized Microsoft SQL (MSSQL) system
- Developed custom SQL queries, reports, and Transact-SQL (T/SQL) packages to support internal systems and developers
- Provided internal support as subject matter expert in network design, security, Windows/Microsoft application architecture, database management, intrusion detection/prevention, forensic analysis, data center operations, and internet protocols

Senior Software Engineer
MotionGrid

Sep. 2000 — Oct. 2001
Laramie, WY

- Mentored junior development staff
- Developed J2EE compliant web applications, utilizing WebLogic, Enterprise Java Beans (EJB), and Java Servlet Pages (JSP)
- Administered Unix and Windows systems to support development staff
- Engineered Microsoft Internet Information Services (IIS) web applications using ASP with COM components
- Initiated sound software engineering practices throughout organization, such as version control of code and database objects, separate build and production environments, and defect tracking

Fraud Detection and Billing Engineer
Affinia, Inc.

Oct. 1999 — Sep. 2000
Denver, CO

- Designed and developed e-commerce advertising fraud detection system
- Implemented custom billing and payment system, integrating with Solomon accounting system
- Developed Perl-based statistical anomaly detection software
- Performed data warehousing tasks using Oracle RDBMS, through PL/SQL procedure and report creation
- Served as peer lead for cross-functional teams during fraud detection, billing, and payment processes

Technical Lead
UPDATE Systems, Inc.

May 1998 — Oct. 1999
Boulder, CO

- Hired as the first employee by company president
- Established network and communication systems in initial business location
- Oversaw development and functional requirement gathering during first two versions of flagship software product
- Implemented web software and Unix daemons in Perl on Linux, FreeBSD, and BSDi
- Managed day-to-day IT needs, including email, corporate web presence, security, and Windows client functionality

Software Engineer and Network Administrator
Wind River Visual Communication

Jan. 1996 — May 1998
Laramie, WY

- Created and managed web hosting environment, including management of web servers, routers, switches, and firewalls
- Managed Mac, Windows, Linux, and FreeBSD servers and workstations
- Wrote web-based software in Visual Basic using Application Server Pages (ASP)

Education

Majoring in Gender, Women, and Sexuality Studies, *Metropolitan State University of Denver* — Summer 2021 — Present
Bachelor of Arts in Computer Science, *Thomas Edison State College* — Sept. 2011

Service

Netflix Trans* Employee Resource Group: *Global Lead* — 2021 — Present
Netflix Accessibility/Mental Health Employee Resource Group Neurodiversity Pod: *Founder/Lead* — 2021 — Present
Academic Autism Spectrum Research Partnership in Research and Education: *Community Council Member* — 2016 — Present
Autism in Adulthood (**Journal**): *Peer Reviewer* — 2019 — Present
Denver Area Trans Autistic Support Group: *Co-founder and Facilitator* — 2020 — Present
University of Colorado School of Medicine: *Transgender Standardized Patient* — 2019 — Present
Netflix Trans* Employee Resource Group: *Global Vice-President* — 2020 — 2021
Transgender Center of the Rockies: *Support Group Facilitator* — 2019 — 2021

U.S. Patents

Maslak, J. T. (2021, August 3). *System and method for correlating routing protocol information* (U.S. pat. 11,082,394 B2).

Maslak, J. T. (2021, March 16). *Systems and methods for adjusting a congestion window value of a content delivery network* (U.S. pat. 10,951,530 B2).

Maslak, J. T. (2021, April 13). *Systems and methods for utilization of anycast techniques in a DNS architecture* (U.S. pat. 10,979,387 B2).

Maslak, J. T., Williamson, T. J., & Brady, K. (2021, May 18). *System and method for scrubbing DNS in a telecommunications network to mitigate attacks* (U.S. pat. 11,012,467 B2).

Hopkins, W., & **Maslak, J. T.** (2020, December 1). *DNS rendezvous localization* (U.S. pat. 10,855,646 B2).

Maslak, J. T. (2020, September 8). *Anycast routing techniques in a network* (U.S. pat. 10,771,540 B2).

Maslak, J. T. (2020, March 24). *System and method for correlating routing protocol information* (U.S. pat. 10,601,770 B2).

Maslak, J. T. (2020, December 1). *System and method for determining capacity of a telecommunications network* (U.S. pat. 10,855,591 B2).

Maslak, J. T. (2020, October 27). *Systems and methods for content server rendezvous in a dual stack protocol network* (U.S. pat. 10,819,673 B2).

Maslak, J. T., & Johns, K. C. (2020, February 25). *Anycast manifest retrieval, unicast content retrieval* (U.S. pat. 10,575,167 B2).

Maslak, J. T., & Johns, K. C. (2020, July 7). *Anycast manifest retrieval, unicast content retrieval* (U.S. pat. 10,708,767 B2).

Hopkins, W., & **Maslak, J. T.** (2019, August 27). *DNS rendezvous localization* (U.S. pat. 10,397,180 B2).

Johns, K. C., Lawrence, J. C., & **Maslak, J. T.** (2019, February 19). *Selecting a content providing server in a content delivery network* (U.S. pat. 10,212,238 B2).

Maslak, J. T. (2019, October 1). *Anycast routing techniques in a network* (U.S. pat. 10,432,710 B2).

Maslak, J. T. (2019, March 12). *System and method for correlating routing protocol information* (U.S. pat. 10,230,686 B2).

Maslak, J. T. (2019, December 17). *Systems and methods for adjusting a congestion window value of a content delivery network* (U.S. pat. 10,511,533 B2).

Maslak, J. T., & Johns, K. C. (2019, July 2). *Anycast manifest retrieval, unicast content retrieval* (U.S. pat. 10,341,849 B2).

Maslak, J. T., & Lawrence, J. C. (2019, October 22). *Content delivery system and method using anycast or unicast address* (U.S. pat. 10,455,030 B2).

Hopkins, W., & **Maslak, J. T.** (2018, October 16). *DNS rendezvous localization* (U.S. pat. 10,104,036 B2).

Maslak, J. T. (2018, September 4). *Geolocation via internet protocol* (U.S. pat. 10,069,792 B2).

Maslak, J. C. (2017, August 22). *Geolocation via internet protocol* (U.S. pat. 9,742,731 B2).

Maslak, J. C. (2017, May 30). *Multi-peer routing in a network* (U.S. pat. 9,667,535 B2).

Note: Joelle Maslak changed her name in 2018.

Peer-Reviewed Publications

Nicolaidis, C., Raymaker, D. M., McDonald, K. E., Lund, E. M., Leotti, S., Kapp, S. K., Katz, M., Beers, L. M., Kripke, C., **Maslak, J.**, Hunter, M., & Zhen, K. Y. (2020). Creating accessible survey instruments for use with autistic adults and people with intellectual disability: Lessons learned and recommendations. *Autism in Adulthood*, 2(1), 61–76. https://doi.org/10.1089/aut.2019.0074

Nicolaidis, C., Schnider, G., Lee, J., Raymaker, D. M., Kapp, S. K., Croen, L. A., Urbanowicz, A., & **Maslak, J.** (2020). Development and psychometric testing of the AASPIRE adult autism healthcare provider self-efficacy scale. *Autism : the international journal of research and practice*, 25(3), 767–773. https://doi.org/10.1177/1362361320949734

Nicolaidis, C., Zhen, K. Y., Lee, J., Raymaker, D. M., Kapp, S. K., Croen, L. A., Urbanowicz, A., **Maslak, J.**, & Scharer, M. (2020). Psychometric testing of a set of patient-reported instruments to assess healthcare interventions for autistic adults. *Autism : the international journal of research and practice*, 25(3), 786–799. https://doi.org/10.1177/1362361320967178

Nicolaidis, C., Raymaker, D., Kapp, S. K., Baggs, A., Ashkenazy, E., McDonald, K., Weiner, M., **Maslak, J.**, Hunter, M., & Joyce, A. (2019). The AASPIRE practice-based guidelines for the inclusion of autistic adults in research as co-researchers and study participants. *Autism : the international journal of research and practice*, 23(8), 2007–2019. https://doi.org/10.1177/1362361319830523

Conference Presentations

Maslak, J. T. (2021, June). *Designing an 'In-Meeting' indicator with Raku* [Conference presentation]. esLibre, Spain via Zoom.

Maslak, J. T. (2021, June). *Making life better with software* [Conference session]. Perl and Raku Conference in the Cloud, Virtual.

Maslak, J. T. (2019, March). *Overlapping identities: Gender diversity among autistic adults* [Conference session]. Transforming Gender Conference, Boulder, CO, USA.

Maslak, J. T. (2018, June). *Open up your open source modules* [Lightning talk]. The Perl Conference, Salt Lake City, UT, USA.

Maslak, J. T. (2018, June). *You're not wanted here!* [Conference session]. The Perl Conference, Salt Lake City, UT, USA.

Maslak, J. T. (2018, August). *You're not wanted here!* [Conference session]. YAPC EU, Glasgow, UK.