TYLER HALE

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Glen Allen, VA

Engineering leader

specializing in cloud computing and open source technologies. Equally passionate about containers, APIs, and doing more with less. I enjoy building great products and leading high performing teams that deliver them to customers.

Education

2022 – Virginia Polytechnic Institute and State University, Blacksburg, VA
M.S. Information Technology

2008 – Virginia Polytechnic Institute and State University, Blacksburg, VA
B.S. Computer Engineering

Experience

Google – Senior Software Engineer
Continuous Integration and Release
July 2022 - Present

- Designed and built predictive release notification feature to alert developers of upcoming release promotion failures
- Delivered key features supporting invisible release phases and consistent release tagging for Google's Trusted Partner Cloud effort
- Wrote SQL queries and built dashboards to track health and performance of the service used to detect bad changes in the google3 codebase
- Implemented large scale changes (LSC) to deprecate optional usage of ThinLTO across all Google-built binaries

Capital One – Senior Engineering Manager
Enterprise IAM
November 2019 - July 2022

- Directed a team of 10-15 software engineers in day-to-day activities (planning, design, engineering, operations, and support)
- Oversaw multiple migrations of the platform, refactoring from Python to Go and moving from Step Functions to API Gateway
- Increased baseline usage of the platform 4-5x through improved reliability, new functionality, and additional client interfaces
- Fostered a culture of innovation by encouraging innersourcing and collaboration through the use of our SDK and GitHub contribution model
- Brought a strong software engineering culture to the organization by promoting the benefits of containerization, modularity, and CI/CD

Experience

**Capital One – Senior Engineering Manager
Streaming Data
July 2018 - November 2019**

- Developed and maintained Capital One's Streaming Data Platform, hosted on AWS and used by all organizations and lines of business for real time streaming and analytical applications
- Mentored junior members by reviewing pull requests and providing technical direction for the platform
- Participated in all aspects of the recruiting and hiring process, including searches, interviews (on campus and on site), and final consensus
- Developed and conducted chargeback reporting process for direct billing lines of business
- Received a patent for the development and build-out of version 3 of the platform

**Capital One – Lead Software Engineer
Streaming Data
January 2017 - July 2018**

- Designed and built tooling and automation for migrating Capital One's Streaming Data Platform from on-premise to AWS
- Developed automation using Python, Ansible, and Jinja for provisioning and management of Confluent Kafka clusters (deployment, scaling, and rebalancing)
- Implemented CI/CD workflows in Jenkins for rigorous testing of application code and automated releases
- Partnered with customers to run performance, failure, and disaster recovery tests through all stages of the software development process

Patents

"Automated Streaming Data Platform"
US Patent No. 11,025,688
Date of Patent: June 1, 2021

"Pluggable rules engine for ensuring least privilege authorization on the cloud"
IDF07802, Invention ID 82020427
Date of Filing: March 08, 2021

Accolades

Capital One TechXcellence (2022) - For our team's work related to launching a Github app to validate IAM policies in Pull Request status checks

Capital One TechXcellence (2017) - For our team's work related to launching v3 of the Streaming Data Platform, a strategic goal of the company

Certifications

AWS Certified Solutions Architect Associate
Oracle Database 11g Professional
CompTIA Security+
Cisco Certified Network Associate Routing and Switching

Experience

Capital One – Senior Software Engineer
Data Platform Engineering
April 2015 - January 2017

- Managed multiple Cloudera Distribution of Hadoop (CDH) clusters, the largest of which was over 300 nodes and 3 PB
- Responsible for regular maintenance of clusters, including patching, rebalancing, and hardware changes
- Communicated regularly with users regarding incidents, troubleshooting, and upcoming changes to the platform
- Implemented dynamic resource pools on the cluster, to ensure peak performance and SLAs for critical workloads

Capital One – Principal Associate
Database Administrator
June 2013 - April 2015

- Provided DBA support for applications running on SQL Server, Oracle, and DB2
- Developed and tested DDLs and DMLs used in customer servicing and core banking applications
- Participated in team reviews of application changes including DDLs, DMLs and related database maintenance events
- Worked with application teams to troubleshoot query performance issues using tools such as SQL profiler and Oracle explain plan

Tools

AWS
Terraform
Git
VSCode
Make
Docker
OPA

Languages

Golang
Python
Bash
HCL
Markdown
SQL

Experience

**TMEIC Corporation – Process
Automation Engineer
May 2008 - June 2013**

- Worked on a software development team
responsible for creating and maintaining a
cross-platform, database independent product suite
used for industrial automation
- Installed, configured, and tuned Oracle and MS
SQL databases for customer projects
- Designed and oversaw the databases used in
customer automation systems by scripting database
objects, functions, and stored procedures
- Delivered SQL Stored Procedures, a library used to
send events and generate alarms through the use of
Oracle/SQL Server external stored procedures
- Administered VMWare Servers and VMWare ESXi
Servers used for hosting software testbeds and
re-staging customer systems