

Andrew Tanner

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Summary Accomplished tech industry professional with measurable success planning and implementing complex software development and infrastructure projects using a range of programming languages, operating systems, and tools.

Skills **Expertise Areas:** Software Development, Microservices, Cloud Technologies, Automation, Data Engineering, Data Analytics/Visualization and Technology Leadership
Languages: Python, Typescript, Javascript, Go, SQL, C/C++, Java, R
Cloud: AWS, Terraform, Kubernetes, Docker
Networking: TCP/IP, DNS, NFS, SMB, Network Design, Packet Analysis and Troubleshooting
Databases: Snowflake, Spatial Databases, Postgres/PostGIS, MySQL, MSSQL
DevOps/CI/CD: GitLab CI, Teamcity, Jenkins, Ansible, Puppet, New Relic
Frameworks: Flask, FastAPI, React, VueJS, Node, Deno

Experience **Principal Software Engineer, Tableau Enterprise Data Platform, Salesforce**
Seattle, WA — September 2019-Current

Proven leader, mentor, software engineer, and architect for multiple large and impactful software projects in the Enterprise Data Platform organization contributing across multiple internal teams: Data Engineering, Telemetry, and Data Platform.

Accomplishments

- Led development of Typescript based telemetry client utilizing opentelemetry and flatbuffers, now used in shipped products across Tableau's product line to increase monitoring and observability of product usage which has enabled answering key questions needed to drive market strategy.
- Built cloud Airflow microservice infrastructure in AWS using ECS Fargate, Terraform, and Python to run data pipelines and scale horizontally as workloads increased. This is the production data pipeline system used by the data science and data engineering team currently running over 100 individual data pipelines with 10,000+ runs daily. Built CI pipelines to facilitate build, deployment, testing, and linting to ensure quality and reliability.
- Built react-based node front-end microservice for building out our new Data Portal (a service to enable data stewards to self service). Built CI Pipeline using scaffold and gitlab-ci to enable Kubernetes deployments across multiple AWS accounts. Built terraform for building Kubernetes cluster, node auto-scale groups, application load balancers, automatic tagging, IAM service accounts etc.
- Organized two summer intern programs across multiple teams, organized meetings to identify intern projects. Individually mentored three interns, worked with them to successfully execute on multiple projects which led to the eventual hiring of all three.

Senior Software Engineer, Performance Engineering, Tableau Software
Seattle, WA — July 2015-September 2019

Technical lead and senior engineer for several critical internal tools and web applications fundamental to Tableau's performance testing and analysis infrastructure. Architected and wrote planning and

design documents. Expert in data analysis and visual analytics designing key visualizations for understanding performance data and the state of test infrastructure. Mentor to new hires and team members and responsible for setting direction for multiple individual contributors related to ongoing projects.

Accomplishments

- **Landmark Project:** Designed, developed and led a small team to develop internal microservices and performance frameworks for automatically identifying performance regressions and narrowing the source of the regression to a specific change which has significantly lowered the time needed to identify product regressions.
- Designed, developed and deployed an internal web application that enables engineers to commission custom self service performance test runs against their code. Application is extensively utilized across the organization for self service performance testing.

Senior Software Developer Engineer in Test, SpaceCurve

Seattle, WA — August 2013-June 2015

Test lead and automation developer on several key product features including SQL Spatial Query Engine, Spatial Join, Spatial Aggregation, Data Migration, and various DB partitioning features. Responsible for building performance, stress, and customer workflow tests. Provided planning expertise writing several product test plans and automation designs. Lead on product performance testing.

Accomplishments

- Developed framework and tests to validate the SpaceCurve database end-to-end, covering all major functionality necessary to exercise the product as a customer would. Utilized this framework to build stress, performance, and tests modeling customer data and workflows. Leveraged this framework to build the majority of the tests run as part of release candidate and product release testing.
- Developed a performance framework to automatically detect product ingest or query regressions and report on nature of the regression and scope. Integrated this feature into the continual product test process. This framework has solved the problem of undetected performance regressions in the product.
- Built data generation framework for generating geojson data utilizing different probability distributions (such as normal, exponential, and pareto). Built datasets and tests for validating product partitioning performance, stability, and stress using this tool.

Senior Software Developer Engineer in Test, EMC Isilon

Seattle, WA — January 2007-July 2013

Test lead for multiple protocol stack components. Responsible for forming vision and direction of internal test projects; drafted test plans, managed schedules and resources, developed automation and coordinated with other teams to ensure a high level of quality in EMC Isilon's OneFS NFS protocol stack.

Accomplishments

- Developed protocol-fuzzing frameworks around NFSv3, NFSv4, and DNS using the Mu platform, providing complete protocol fuzz coverage for the majority of NFS and DNS operations.
- Mentored 5 employees and coordinated an intern project to create a link between Testopia and internal test automation.

Awards

- Outstanding Achievement Award for contributions to the OneFS Chopu 6.5 product release.
- Bronze Award for contributions in managing OneFS Minor Release Certification test efforts.

Software Developer in Test, AudienceScience

Bellevue, WA — 2005-2007

Responsible for developing component libraries and tools to enable automatic testing and configuration of the company's product architecture. Contributed software development expertise and extensive knowledge of QA methodology to the team.

Software Developer in Test, AT&T Wireless

Redmond, WA — 2003-2005

Responsible for all phases of the software test cycle including: writing test documents (test plans, test summaries, and outlining test cases), performing software test cycles, developing tools, and writing automation test suites.

Software Developer, 3Com Corporation

Rolling Meadows, IL — 1998-2002

Designed software technologies related to 3Com's carrier product line. Responsibilities included: identifying customer needs, writing project specifications, drafting design documents, developing software, performing product testing, and solving customer deployment issues.

Github github.com/drewnix