Scott Smitelli • scott@smitelli.com

Senior backend and cloud engineer with fifteen years of experience. Enjoys interpreted languages such as Python and environments where infrastructure is code. Likes tinkering with the interesting aspects of technology while automating the more tedious bits.

Experience

GoDental.ai • Software Engineer
Jun 2024–present

Productionized a suite of Python data collection and ETL scripts into AWS Lambda with persistent storage in RDS and S3. Optimized RDS deployment to reduce costs and minimize latency in the data ingestion pipeline. Migrated the company's entire DNS zone into a managed CDK stack. Implemented layout improvements and sorting/filtering capabilities in the customer-facing React web application.

- *Technologies*: AWS (CDK/CloudFormation, Lambda, API Gateway, Cognito, CloudFront, Route 53, Amplify, RDS, S3, SQS), Python, Gemini API, PostgreSQL, Docker, React, Material UI, Git

Nextdoor • Software Engineer, Cloud
Jan 2022–Aug 2023

Prepared the Nextdoor.com web application for migration from AWS ECS to Kubernetes by developing Helm charts, Istio configurations, and Argo Rollouts deployment specifications. Migrated a number of associated microservices, some unmaintained, to Kubernetes in tandem. Supported the operation of ten separate EKS clusters comprised of thousands of EC2 instances, collectively hosting tens of thousands of pods during typical daily traffic peaks. Led other engineering teams in their adoption of the new environments by conducting architectural reviews, writing documentation and hosting twice-weekly office hours.

- *Technologies*: Kubernetes, Helm, Argo Project (Argo CD, Rollouts), AWS (CDK/CloudFormation, EKS, ECS, EC2, Lambda, CloudFront), Python, Docker, Bash, Go, Lua, Istio/Envoy, Prometheus, Grafana, Linux (Amazon Bottlerocket), nginx, NetApp Spot, Git/GitHub Actions, CircleCI

Shutterstock • DevOps Engineer
Nov 2020–Jan 2022

Migrated the Amper Music infrastructure into Shutterstock's network after Amper was acquired, including relocating live resources between AWS regions, converting legacy CloudFormation templates into Terraform, moving source control, and recreating CI/CD workflows to match Shutterstock conventions. Facilitated the integration of Amper API endpoints into Shutterstock products and contributed to the user-facing API documentation. Supported the Data Engineering team by maintaining services and data stores used by AI/ML model training processes.

- *Technologies*: Terraform, Python, Bash, AWS (EC2, S3, CloudWatch, EFS, DynamoDB), Linux (Debian), nginx, Prometheus, Grafana, Ansible, Milvus, MySQL, Redis, Metaflow, Kafka Connect, Databricks, Atlantis, Packer, Jenkins, Git

Amper Music • Web Systems Architect
May 2015–Nov 2020

As the first full-time employee, built out all of the infrastructure and web-facing software to launch an AI music generation platform which has since created tens of millions of minutes of music. Designed and implemented API servers for both internal and external use, managed all aspects of DevOps on AWS, and designed the overall architecture of the company's web applications and services. Responsible for the deployment, reliability, and performance of over a dozen discrete services and a musical instrument library of almost one terabyte.

- *Technologies*: Python, Flask, Salt, AWS CloudFormation, AWS (EC2, S3, CloudFront, RDS, ElastiCache), Linux (Debian), nginx, uWSGI, MySQL, Redis, RabbitMQ, cloud-init, Packer, Vagrant, Hugo, Jenkins, Git, Bash, FFmpeg, JSON:API, Jira, Cloudflare, G Suite

Maker Studios (formerly Blip Networks) • Senior Engineer   *Sep 2013–Jun 2015*

Built and maintained software for ingesting, transcoding, and serving web video; served as a systems engineer. Implemented API servers—some handling 1,800 requests/second, reporting scripts, and translation tools during the acquisition by Maker Studios. Migrated applications from bare-metal to hypervisors and AWS. Assisted with the teardown of a monolithic Perl application and replacement with loosely-coupled microservices, all managed using Puppet.

Thomson Reuters • Web Developer   *Jan 2013–Sep 2013*

Took ownership of the Reuters Next, a prototype of the Reuters.com news platform with re-imagined UX and a modern backend. Implemented features, practiced test-driven development, and productionized the site for deployment on AWS. Navigated the knowledge transfer between the prototyping agency and an offshore engineering and QA team.

Worldnow • Senior Interactive Development Manager   *Nov 2011–Jan 2013*

Built custom frontend features for a content management platform used by dozens of television news stations across North America. Advised client services managers on the feasibility and scheduling of such requests. Assisted with a global conversion of all web templates to responsive design. Created libraries to simplify shared customizations.

Abrams Media • Lead Developer   *Jan 2010–Nov 2011*

As the first full-time engineering hire at a rapidly-growing media company, managed a fleet of WordPress servers which handled 35–40 million pageviews per month and maintained all office IT. Developed ancillary applications, including a job search board, photo gallery, bulk emailer, traffic analyzer, and management scripts. Supervised a team of three engineers.

Wall Street Webcasting • Streaming Media Encoder   *Sep 2009–Jan 2010*

Captured and transcoded audio from earnings conference calls for live streaming over the Internet. Logged and archived audio onto network-attached storage for on-demand playback.

Freelance • Audio Engineer   *Jul 2007–Jul 2013*

Recorded, edited, and/or mixed audio on six independent feature films and over 40 short films. Managed audio operations for music production, live theater, and art installations.

Interests

- *Retrocomputing*: ANSI C and 16-bit x86 assembly language under MS-DOS.
- *Technical Writing and Drawing*: Articles and sketches on technology, audio, and the peculiarities of the Internet.
- *Music Mashups*: The vocals of one song over the instrumentals of another, leading to truly incongruous combinations.
- *Photography*: Long-exposure night shots and time-lapse video sequences, shot digitally.
- *Electronics and Wiring*: Can crimp a pretty mean Ethernet cable.

Education

New York Film Academy • New York, NY   *Sep 2006–May 2007*

Produced, wrote, directed, and edited several short films in a competitive and accelerated program of study. Worked in the camera, sound, and editorial departments of other students' films.

Rochester Institute of Technology • Rochester, NY   *Sep 2004–May 2006*

Computer Science Major. Proud member of Computer Science House, a special interest organization where students worked on projects spanning a multitude of disciplines.