

# Guthrie McAfee Armstrong

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**Platform Engineering** · **DevEx** · **GitOps** · **Infrastructure as Code**

## Summary

DevOps and Infrastructure Engineer specializing in automating infrastructure and refining access and deployment systems on cloud platforms. Strong Python background spanning data engineering and a broad range of software engineering projects.

## Skills

**Containers & Orchestration:** Kubernetes (learning), Docker, ECS

**IaC & Automation:** Terraform/OpenTofu, GitHub Actions, CircleCI

**Languages:** Python, Go (learning), Kotlin, Java, SQL, Bash/shell scripting

**Cloud Platforms:** Amazon Web Services, Google Cloud Platform

**Build Tools:** Make, Gradle, Poetry, Nix

**Monitoring & Observability:** CloudWatch, New Relic, PagerDuty

**Networking:** AWS VPC, AWS VPN, Route53 (DNS), PrivateLink

**Access Control:** IAM Identity Center (AWS SSO), OAuth, SAML, AWS Secrets Manager

**Data & Pipelines:** PostgreSQL, S3, Amazon Redshift, BigQuery, Google Cloud Dataflow

## Certifications

**AWS Certified Solutions Architect – Associate (SAA-C03)**

Mar 2024 (Exp. Mar 2027) — [\[click to verify\]](#)

## Professional Experience

### *Coalition, Inc. — Site Reliability Engineer II*

*Remote · Jun 2025 – present*

### *New York Public Radio — DevOps/Platform Engineer*

*Remote · Oct 2022 – Feb 2025*

Led migration from legacy Terraform codebase to modular, versioned configurations in Terraform 1.x

Built and integrated Terraform Cloud modules with GitHub Actions workflows, supporting ECS, EC2, and Lambda deployments and enabling rapid provisioning of custom AWS environments for internal teams

Centralized identity and access management via IAM Identity Center; integrated with SAML/OAuth providers to secure and automate identity provisioning from Microsoft Entra ID (Azure AD)

Tuned observability stack to reduce false-positive alerts and improve MTTR, improving signal-to-noise for on-call rotation

Developed Python-based ELT pipelines for PostgreSQL and Redshift; improved query latency through schema and index optimization

Integrated Cloudflare WAF to proactively detect malicious traffic, mitigate DDoS attacks, and ensure high availability for mission-critical web services

## Open Source

**echo-service** – Go/Kubernetes web microservice; Kustomize for dev/prod overlays, unit-tested and published via GitHub Actions

**python-datamuse** (78+ GitHub stars) – Python wrapper for the Datamuse API; used in creative NLP tools; unit tested with mocking

**vim-muse** – Vim plugin for creative writers that fetches synonyms, rhymes, and semantic matches from an NLP API; unit tested and written for a hackathon

**letter-boxed** – CLI-based solver for the NYT *Letter Boxed* puzzle; unit tested, written in Kotlin  
Contributed to **Dangerzone** PDF sanitizer (project of the Freedom of the Press Foundation)

## Education

### **University of Georgia — B.S. Computer Science**

*Aug 2016 – Aug 2022*

**Senior coursework:** Data Security & Privacy (differential privacy, adversarial ML), Cloud Computing (GKE, EKS, Kubernetes), Computer Networks (TCP/IP, network topology, routing protocols), Combinatorics

**Publication:** *Boots and Bail on the Ground: Assessing the Implementation of Misdemeanor Bail Reforms in Georgia*, Georgia Law Review 54(4), 2020 (with A. Woods et al.) [\[link\]](#)

**Presentation:** *I-Diversity of Felony Charges in k-Anonymous Jail Data*, UGA CURO Symposium, 2020 (advised by S. Shannon)

**Presentation:** *Georgia Jail Data: Significance and Inaccessibility of Government Records*, Historical Profiles of American Incarceration, 2019 (with A. Potts)

## Research & Foundational Experience

### **UGA Rural Jails Research Hub — Intern Research Engineer**

*Remote · Apr 2020 – May 2021*

Wrote web scrapers for 43 county jail systems using Python Requests and Selenium; implemented parallelized processing to minimize compute costs to \$20/mo

Extracted semi-structured records from PDF reports using regex and R

Developed a containerized pipeline on GCP to ingest, clean, and store scraped data; implemented scheduling and alerting with Pub/Sub

Standardized disparate datasets into a unified PostgreSQL schema using Hibernate for Java, enabling cross-county comparisons

Implemented a multi-tiered ELT pipeline using GCP BigQuery and Dataflow, enabling downstream analysis while preserving strict data lineage and provenance

### **Willson Center Digital Humanities Lab, UGA — Undergraduate Research Assistant**

*Jan 2020 – May 2020*

Linked historical census microdata to anonymized datasets of enslaved individuals using R and Python

Digitized archives via OCR (Tesseract) and NLP (spaCy); built named-entity extraction tools to surface structured metadata

Led LaTeX and Pandoc workshops for researchers and faculty

### **Fernbank LINKS Robotics — Programmer & Mentor**

*2015 – 2016 (high school team)*

Programmed routines in Java for task execution; integrated sensors for field navigation; taught CAD fundamentals to teammates

Helped organize and run regional *FIRST Tech Challenge* and *BEST Robotics* events; handled real-time logistics and technical triage

Co-led community outreach program teaching LEGO Mindstorms programming to elementary students