

Bradley Thomas Barrett

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Bradley is a software engineer with 8 years of experience helping clients implement enterprise patterns for AWS Cloud, DevOps, Data Pipelines, and Services & APIs. His engineering and management experience spans industries such as financial services, energy, health insurance, and supply chain. Bradley has a passion for communicating technology and developing teams. He led the AWS community of practice at CapTech (150+ members) where he spread cloud expertise and created opportunities for others to grow.

Certifications: AWS Solutions Architect Professional, HashiCorp Terraform Associate

Personal Projects: <https://github.com/bradleybarrett/>

WORK EXPERIENCE

CapTech Consulting – Senior Manager, Software Engineer

Client Engagement – Top 10 Bank in U.S. – Mar 2024 to Present

Technical Lead, Cloud & Data Engineering

- Led 3 teams (15 engineers) to migrate 1000+ datasets (petabytes) to the bank's governed data platform.
- Repaired relationships with senior client leaders and developed new processes and tools to manage data migrations (progress tracking, release schedule, schema inference, data copy, data validation).
- Learned the architecture of data applications to recommend the migration pattern and governed SDK integration to gradually test and migrate datasets.
- The technology stack of producer apps spanned: Python, Apache Airflow, AWS EMR, AWS Step Functions, AWS Glue, AWS Lambda, AWS S3, Delta Tables, Snowflake, Databricks, Microsoft Copilot

Client Engagement – Top 5 Energy Provider – Mar 2023 to Jan 2024

Lead Cloud & DevOps Engineer

- Lead engineer for 3 client projects (100+ AWS resources); oil data: pipeline, platform, and portal.
- Improved deployment time for new environments from weeks to sub-hour with terraform and Azure DevOps pipeline templates.
- Introduced patterns for shared terraform config across states, environments, and repositories.
- Developed change roadmap and worked with leadership to introduce best practice amidst delivery deadlines.
- Trained team members and presented on cloud architecture and release patterns to improve delivery.
- Technologies: AWS, Terraform, Terragrunt, Azure DevOps CI/CD, Python, Windows Batch, Docker, Packer

Client Engagement – Top 5 Investment Bank – Apr 2021 to Mar 2023

Lead Cloud & DevOps Engineer

- Led a team of 5 engineers to evolve the client's cloud platform for credit card products.
- Implemented the new AWS architecture (multiple regions, accounts, private networks) and deployment pipelines (authored 15+ terraform modules and git submodules, created reusable GitLab pipeline templates).
- Infrastructure pattern adopted by 7+ client products, each with 6 environments and 2 regions, encompassing 100+ java application services and over \$25M in annual AWS spend.
- Reduced deployment time for new product environments from months to hours, released new credit cards on time, and enabled the team to support additional credit cards.
- Technologies: AWS (ECS Fargate, Transit Gateway, VPC), Terraform, GitLab CI/CD, Python, Bash

Client Engagement – Top 5 Health Insurance Provider – Apr 2020 to Apr 2021

Cloud Engineer

- Lead engineer for migration of the client's first data analytics pipeline to AWS.
- Identified and documented Terraform performance enhancements shared across the company.
- Provided AWS/Terraform overviews to help the client build, maintain, and grow the analytics platform.
- Refactored python implementation for ML models with functional programming best practice.
- Implemented python packages to reuse common logic across AWS glue jobs and AWS lambda functions.
- Technologies: Terraform, Terraform Enterprise, AWS (Glue, Step Functions, SageMaker, Lambda), Python, Bash

Client Engagement – Fortune 500 Supply Chain Software Provider – Jul 2017 to Apr 2020

Java Engineer

- Developed spring boot microservices run as docker containers for warehouse management.
- Created a test framework for flow-specific performance tests (wiremock, spring, eureka, Jmeter).
- Restructured mobile UI and backend services for multi-scan disposition, highlighted at company-wide demo.
- Fostered a collaborative culture by on-boarding team members and documenting custom frameworks.

EDUCATION, HONORS, & INTERESTS

- University of Virginia – Major: B.S. Computer Engineering; Minors – Business, Design Integration; GPA: 3.94
- High School – Junior Class President, Captain Varsity Soccer, HiMCM National Finalist, DECA State Champion
- Interests – Competitive Cornhole, Soccer, Running, Golf, Guitar, and Competitive Gaming

INTERNSHIPS

CapTech Consulting – Intern, Software Engineer – Summer 2016

- Developed REST API and data storage backend for new social media management system.
- Member of agile software development team, served as SCRUM Master for team sprint.
- Selected by team to present final project demo to entire company and stakeholders.
- Technologies: Java, Spring Boot, Spring Social, AWS S3, MongoDB, Git

General Dynamics, Software Engineering Intern – Summer 2015

- Developed dynamic web application for testing engineers to monitor applications.
- Technologies: Java, Spring Framework, SQL, JSP, HTML, CSS, JSP, Drools

PERSONAL PROJECTS

QueryMock – Containerized Mock Server for Query Endpoints

- <https://github.com/bradleybarrett/querymock>
- Http mock server for application tests. Run each mock as a container managed by language-specific clients.
- Mock responses generated by evaluating mvel expressions on static data.
- Technologies: Java, Python, Bash, Springboot, WireMock, Docker, mvel

“Goat Milk?” Dairy Farm – Load Balancer for Canary Deployments

- <https://github.com/bradleybarrett/goat-milk-dairy-farm>
- Implement a load balancer and demo application for incremental deployments.
- Route internal traffic based on weights assigned to service versions. Weights are externalized in a git repo.
- Researched and identified key patterns for routing and service registry.
- Technologies: Java, Go, Docker, HA-proxy, Consul-template, Consul, Gonsul, Spring Cloud Consul.