ABENEZER MAMO

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full-stack developer with backgrounds in API & UI development, microservices, databases, fuzzing, NLP & ML, UX design & research, and cloud-native & bare-metal multi-tenant computing systems

SKILLS

- **Languages + Frameworks**: Python, JavaScript/TypeScript, Go, Haskell, C++, C#, SQLAlchemy, Flask, Django, React
- **Infra + Ops**: AWS, GCP, Azure, Postgres, MySQL, Mongo, Redis, RabbitMQ, Pulsar, Docker, Kubernetes, Linux, Terraform

EXPERIENCE

Software Engineer - Mobile, Klaviyo **May 2022 – Present**

Collaborating on various projects aimed at providing a scalable and performant sending experience necessary to ensure client messages get sent through the right channel and get delivered via the right platform at the right time – emphasis on internal and external delivery enablement.

- Debugging, troubleshooting, and fixing various operational issues and bugs that come up during PagerDuty
- Leveraged Grafana, Graphite, and statsd to develop monitoring and alerting to increase observability during peak traffic hours as well as get visibility into ongoing operational behaviors during cutovers to deliver a user experience with little to zero downtime
- Maintaining a customizable account information report generator & visualizer built using dtale, Django & MySQL to quickly identify and decommission low-volume and noncompliant SMS accounts & reduce costs associated with unused numbers & content violation remediation
- Working on internal tooling such as feel, a command line CSV filter built using clize, and docd, a lightweight and opinionated docstring generator to incrementally improve code readability in a sizeable monolithic codebase

Software Engineer - Platform, ForAllSecure **March 2021 – May 2022**

Worked independently and as part of short-term & rapidly evolving teams to bring Mayhem – a fully autonomous cybersecurity system – to market. Responsibilities included but were not limited to designing, building, and maintaining various services and features, such as GitHub OAuth and sharable badges, aimed at enabling easy integration into existing CI/CD pipelines and shortening customer onboarding journeys.

- Integrate third-party APIs such as GitHub OAuth & Keycloak to simplify authentication in CI/CD workflows
- Optimized queries associated with defect reporting endpoints to decrease page load times by 24%
- Built a reporting dashboard using Postgres, SQLAlchemy & React (reCharts) to provide easily consumable usage insights and increase engagement with non-developer users of the Mayhem platform
- Actively improved internal testing infrastructure using pytest fixtures to increase reusability & test coverage by 8%
- Refactored database garbage collector queries to minimize the number of test cases stored in a database without adversely affecting coverage to provide faster test suite download and regression testing times for customers

Junior Backend Engineer, Pivony **May 2020 – October 2020**

Architected a distributed AWS native topic modeling platform to process and summarize textual data, identify trends such as sentiment, common complaints, influential documents, most frequent keywords, and deliver actionable insights.

- Built a preprocessing microservice using SQLAlchemy, Docker, and Dask to provide multilingual sentiment analysis, text tokenization, & keyword extraction; optimized the service using multithreading, resulting in a 55% reduction in billable EC2 instance hours
- Created an AWS resource orchestrator using boto3, SQLAlchemy, and Postgres to optimize resource allocation and eliminate idle EC2 instances
- Researched and developed a topic modeling engine utilizing BERT and various unsupervised algorithms such as LDA & GSDMM to cluster text into human-readable topics at scale
- Designed and implemented a RESTful API to provide a universal gateway to various microservices using nginx, Flask, SQLAlchemy, and AWS RDS

EDUCATION

Computer Science, BA, Reed College **August 2015 – January 2020**

- **Thesis** : Scalable Learning for the Odd-Man-Out Task with Applications to Word Vector Induction

Study Abroad, Informatics **August 2017 – June 2018**

PROJECTS

mok **November 2020 – Present**

- A pseudo-random data file [CSV, JSON, Parquet, XLSX, TXT] generator package written in Python

sirch **June 2022 – Present**

- parse static Markdown files & extract metadata such as keywords, tags, and summaries using natural language processing to generate a low-bandwidth search-enabled site