# **THOMAS LOVETT**

Specialties: backend, APIs, reliability, and delivery

Languages: Java & Spring, Python, Rust, Bash, Javascript, SQL

Technologies: Docker, Elasticsearch, Git, Grafana, GraphQL, Graylog, Kubernetes, Postgres, Prometheus,

Redis, REST, SOPS, Terraform

Services: AWS, BitBucket, GitHub, GitLab, Sentry

Tech Skills: on-call, diagnostics, debugging, design, documentation, security, SLIs & SLOs, testing

Soft Skills: collaboration, communication, interviewing, mentorship, research

#### **EXPERIENCE**

## **Gap Year, Austin, TX**

Apr 2021 - present (10+ months)

After the worst of COVID lockdowns, I decided to take an extended break from from work to visit family & friends, reset, recharge, and pursue hobbies.

- Learning browser internals via a new <u>Web Browser Engineering</u> interactive textbook
- Exploring 35mm film photography, improving my bouldering & climbing, reading, etc.

## Site Reliability Engineering, RetailMeNot, Austin, TX

Staff Software Engineer Sep 2020 – Apr 2021 (7 months)
Senior Software Engineer Jan 2018 – Aug 2020 (2 years, 8 mo)

Reduced engineering operational costs by over 50% with a new production runtime and monitoring platform, while simultaneously improving go-to-market speed and production reliability.

- Prototyped, architected, implemented, and supported teams' adoption of a new, multi-tenant, full-service AWS Elastic Kubernetes runtime.
- Collaboratively designed and implemented the network topology, server pools, storage layer, and RBAC controls
- Implemented Fluentd log shipping to Graylog, centralized Prometheus metric scraping, Grafana metric visualizations, and AlertManager → PagerDuty critical alerting.
- Served on a 24/7 **on-call** rotation to maintain uptime for our teams, using metrics and logs to diagnose problems and proactively notify teams of potential issues.
- Built GitLab Pipelines for continuous integration and automated delivery for multiple languages and patterns.
- Built Helm Charts and used Helmfile for other teams to declaratively deploy code
- Used Terraform to provision AWS cloud resources.
- Used SOPS to manage application secrets in Git, encrypted using AWS KMS Keys.

Performed build vs. buy analysis to select a new log aggregation solution for the organization.

- Analyzed cost, risk, and features of available SaaS products, self-hosted OSS products, and our existing solution
- · Presented to and consulted team, management, and users for iterative feedback
- Prototyped and demo'd self-hosted Graylog on Kubernetes

Helped shape team processes and workflow.

- Used aspects of Kanban workflow for managing multiple work streams
- Created processes for accepting interrupts from supported teams and prioritizing them amongst scheduled work
- Developed on-call responsibilities, schedule, and on-boarding process.

## **Product Development Teams, RetailMeNot**

Software Engineer II Jul 2015 - Dec 2017 (2 years, 6 mo)

- Architected and implemented production runtimes in **AWS Elastic Beanstalk**. Implementations included: ECR, ECS, ELB, CloudWatch, CloudFormation, RDS, Route53, S3, and SQS.
- Designed and built **REST APIs** and clients in **Java** with **Spring** and **Python** for gift card purchase workflows, card-linked offers, and member data. Utilized the <u>12-Factor App</u> methodology.
- Contributed to the initial development of a **GraphQL** API in **Java** for member profile data. Helped design the data graph, build clients, and implement callers. Contributed bug reports and commits to the open source libraries we used.
- Implemented gift card purchase UI/UX in an existing Android app.
- Created reusable libraries and Spring Boot Starters to eliminate redundant complexity across the organization.
- Used **SQS** message queues for asynchronous, scalable task processing
- Researched and designed implementation paths for **3rd party integrations**, with a focus on reliability through error handling, idempotency, retries, and graceful fallbacks.
- · Helped shape the team's Agile workflow for more efficient and enjoyable feature delivery
- Worked across team, domain, and technology boundaries to deliver new products and features.

## Software Engineer I Aug 2014 – Jun 2015 (11 months)

- Contributed to PHP server-side rendering systems for the website
- Contributed to **REST APIs** in **Java** with **Spring** for in-store offer management, publishing, and display.
- Implemented SQL queries for data retrieval and storage
- Used aspects of **Agile** workflow to deliver features for both internal and external users, in an environment with often-changing requirements and priorities.
- Used Atlassian suite of development tools, including BitBucket and JIRA
- Translated product requirements and design mockups into production code

## **EDUCATION**

University of Michigan - Ann Arbor, MI

B.S.E. Computer Science '14