# Andrew Leonard

## EXPERIENCE

### **Ally Financial**

Principal Software Engineer

Remote January 2022 – Present

- Developed and deployed business-critical backend APIs in Node.js using AWS serverless architecture, ensuring scalability, resilience, and cost-effectiveness.
- Architected and executed a multi-region API strategy, ensuring high availability via Route53 and AWS Lambda-based health checks for automatic failover. Implemented cross-region resource replication provisioned with Terraform to guarantee seamless infrastructure deployment and disaster recovery.
- Designed and deployed event driven architectures allowing for real time updates from multiple data sources and the reduction of downstream dependencies to reduce API response times by 25%.
- Deployed new serverless data pipeline infrastructure using AWS Glue to hydrate production databases with over 10 million customer records, further optimizing large-scale data management processes.
- Deployed AWS Opensearch infrastructure, providing flexible and scalable full-text search capabilities for customer information across multiple lines of business.
- Refined unit and integration test suites, achieving over 95% coverage to significantly improve code reliability and reduce regression risks.
- Improved the CI/CD experience using GitLab Runners hosted in AWS EC2, providing consistent build, test, and deployment pipelines to significantly reduce overall development time.

## The MITRE Corporation

Senior Software Engineer

- Photon Signal Processing Framework
  - Deployed and orchestrated containerized ELK (Elasticsearch, Logstash, Kibana) stack clusters for high volume data ingestion and analysis using Docker and Kubernetes hosted across multiple AWS EC2 instances.
  - Developed REST APIs using Python/Flask for configuring and tuning high-performance Software Defined Radios, enabling real-time wideband signal processing and channelization.
- ACE (Accessible Communications for Everyone) Direct
  - Designed and developed full-stack web applications, leveraging WebRTC to facilitate user video communication and videomail capabilities.
  - Reduced application server requests by 50% and improved page load times by 73% by introducing caching layers and asset compression.

#### **EDUCATION**

#### Georgia Institute of Technology

Master of Science – Computer Science – GPA: 4.0 Rutgers University

Bachelor of Science – Computer Science

Remote January 2021 – May 2024 (Estimated) New Brunswick, NJ January 2015 – May 2018

## PROJECTS

#### Fastmail Masked Email Manager

A web extension leveraging Typescript, React, and Tailwind CSS allowing users to easily manage their Fastmail Masked Emails

## **TECHNOLOGIES / LANGUAGES**

Languages: Java, Python, JavaScript/Typescript Technologies: AWS Serverless, Lambda, DynamoDB, EventBridge, SQS/SNS, Datadog, MySQL, Git, Docker, Node.js, Linux, Elasticsearch, Logstash, Kibana, Flask, Terraform

Eatontown, NJ June 2018 – January 2022