# lan Laird

# Google

Software Engineer III — October 2023 - Present

Software Engineer II — September 2022 - October 2023

- Created machine learning models using state of the art technologies such as TensorFlow and BERT resulting in much greater quality when compared with previous non-ML solutions.
- Designed and implemented MapReduce pipelines for the generation of testing and evaluation data for machine learning model evaluation.
- On-call rotations demonstrated my ability to handle high-pressure situations, provide top-notch support to clients, and document incidents to ensure knowledge transfer.

### Toast

Software Development Engineer II — June 2022 - September 2022

- Implemented an API for generating user metric reports.
- Transformed the existing database management code into a standalone microservice. This streamlined automated testing processes and bolstered the stability and efficiency of the CI/CD pipeline.

# **Capital One**

Senior Associate Software Engineer — July 2021 - June 2022

- Significantly reduced Capital One's annual operating costs by hundreds of thousands and saved hundreds of developer hours annually through the retirement of a cloud-based legacy application.
- Constructed a Java microservice that transferred tens of thousands of files between systems of record to comply with internal audit requirements.
- Constructed a comprehensive data pipeline for the collection and combination of large datasets from secure s3 buckets and snowflake tables. The pipeline employs Spark on an EMR cluster, controlled by a containerized Java microservice, to perform complex computations.
- Increased Cloud Resiliency by creating infrastructure needed for applications to quickly fail over to a backup AWS region.
- Revamped IAM roles and policies to comply with stricter internal requirements.

Associate Software Engineer — August 2020 - July 2021

- Developed a web application for tracking financial fraud.
- Improved automated testing of the application by expanding E2E, unit, and integration tests.
- Participated in multiple AWS regional failure simulations.

# **Baylor University**

Independent Researcher — Fall 2019 - Spring 2020

# ICPC

Software Development Intern — Fall 2018 - Spring 2019

## **Education**

#### Baylor University — May 2020

- Bachelor of Science in Computer Science
- Magna Cum Laude 3.87 / 4.00
- Received 6 Dean's List Awards

AWS — Solutions Architect Associate

• Expired Dec 2023

## Languages

Java • C / C++ • SQL • Python • Bash

## Tools

Cucumber • Docker • Git • Github • IDEA •

Jenkins • JDBC • JPA • Junit • MapReduce • Maven • NLTK • Postman • Proto Buffers • Slack • Spring • Unix

## AWS

S3 • RDS • EC2 • ECS • IAM • EMR

# **Highlighted Coursework**

OS • Networking • NLP • Automata Theory • Information Security • Data Structures • Algorithms • Database Design

## **Projects**

Derivative – Spring Boot, Docker

- Intelligent Lexical Analysis.
- Parsing via Shunting Yard Algorithm.
- Equations are represented via AST.
- Separate containers for app and DB.
- Testing Steps with Github Actions.

Football – Spring Boot, React, MySQL, Kubernetes

• Displays statistics for college football players and teams.

HTTP Server / Client – Java, Sockets, Multithread

- Implements a simplified http server and client compatible with TLS.
- Includes HTTP discovery service.

Review Analyzer – NLTK, Scikit-learn

- Finds keywords across reviews.
- Determines sentiment using ML.

#### Tiger Game – C++ 11

- Player Al guarantees victory.
- Tiger AI stalls and waits for a mistake to be made by the humans to exploit.

Snake Game – Java, Completion Handlers, Sockets

• Async I/O with completion handlers.