

# ABENEZER M. MAMO

## FULL STACK DEVELOPER

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### EDUCATION

#### Bachelor of Arts, Computer Science

Aug 2015 – Jan 2020

Reed College

Portland, OR

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

#### Study Abroad, Informatics

Sep 2017 – Jun 2018

University of Sussex

Brighton, UK

### TECHNICAL SKILLS

**Languages/Frameworks:** python, golang, Haskell, JavaScript, Django, Flask, Mux, Gin, React, Celery

**DevOps:** AWS, GCP, Azure, Postgres, MySQL, MongoDB, Redis, Docker, Kubernetes, Linux, Git, Jira

### WORK EXPERIENCE

#### Pivony

May 2020 – Oct 2020

Junior Backend Developer

Portland, OR

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

- Built a preprocessing micro service using SQLAlchemy, Docker, and Dask to provide multi lingual sentiment analysis, text tokenization, & keyword extraction; optimized the service using multithreading resulting in a 55% decrease 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 LDA & GSDMM to cluster text into human readable topics at scale
- Leveraged multi-core EC2 instances in conjunction with docker & Kubernetes to efficiently scale services horizontally and reduce EC2 swarm by 90%
- Designed and implemented a RESTful API to provide a universal gateway to various micro services using nginx, Flask, SQLAlchemy, and AWS RDS

#### Software Design Studio

Jan 2017 – Aug 2017

Full Stack Developer Intern

Portland, OR

Got introduced to various programming tools such as Flask, JavaScript, Postgres, HTML/CSS/JavaScript, Git, & Linux culminating in a fleet management / geolocation tracking web application to automate vehicle management

- Developed a geolocation tracking engine using jQuery, Flask, PostgreSQL, and Google Maps API to accurately estimate trip duration, efficiently manage fleet, and remotely monitor vehicle locations
- Created a user authentication & authorization middleware using Flask, PostgreSQL and python decorators
- Implemented reusable & responsive user centric UI components using bootstrap, JavaScript & CSS
- Leveraged jinja2 and Flask template inheritance to develop reusable components and optimizing UI development workflow

#### Reed College CUS

Mar 2016 – Jun 2019

Help Desk Specialist

Portland, OR

Utilized bash scripting tools in conjunction with remote administration tool Radmin to create and deploy up-to-date OS images to multiple client machines

- Remotely administered labs to provide a secure computing environment
- Tested and deployed weekly firmware and software updates to ensure data security and privacy
- Overhauled real-time monitoring system using PHP and command line scripts to improve reporting accuracy

### PROJECTS

#### fs2db

Oct 2020 – Present

An open source python package with various functions to efficiently extract data from files and load it into a central database

#### validateJSON

Oct 2020 – Present

An open source python package to perform type / value validation on JSON documents to ensure data integrity

#### flask\_rl

Oct 2020 – Present

An open source Flask extension to perform sliding window rate limiting based on request IP address

#### fastdb

Oct 2020 – Present

An open source python package to configure and set up database instances in docker (currently supports Postgres + MySQL)