

# ABENEZER M. MAMO

## FULL STACK DEVELOPER

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### TECHNICAL SKILLS

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

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

### WORK EXPERIENCE

**ForAllSecure** Mar 2021 – Present  
Software Engineer - Interface Portland, OR

Designed, built, and maintained various products, services, and systems necessary to bring Mayhem, a fully autonomous cybersecurity system, to market. Worked across the stack using React, Python, Kubernetes and Helm, GKE to deliver efficient computing resources.

- Provided input on weights for new stories & suggested improvements that will help the development plan
- Built a reporting dashboard using Postgres, SQLAlchemy & React (reCharts) to provide easily consumable insights and increase engagement with non dev users of the product
- Took ownership of the Mayhem CLI and provided various commands & features to allow users to integrate it into their CI/CD pipelines (Jenkins, GitLab, GitHub) easily
- Optimized database performance by normalizing tables and analyzing various internal metrics such as to lead to sub 1second API response times and decreasing loading times

**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
- Utilized 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  
Software Engineer 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

### 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

### PROJECTS

**fs2db** Oct 2020 – Present  
An open source python package to efficiently extract data from files and load it into a central database

**validate\_json** 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