

Sophie Sackstein

914-200-9306

Johns Hopkins University Masters in Data Science (Current, Part-Time)

University of Rochester (Triple Major) Computer Science, Brain and Cognitive Science, Psychology

BOOZ ALLEN LEAD MACHINE LEARNING ENGINEER

MARCH 2021-CURRENT

Worked on SEPU- secure edge processing unit for sonar and aerial reconnaissance and integration with link 16 for cross-platform intelligence. Working on efforts related to the SAF-Fires implementation for the Firestorm OTA and crew reduction proposal, created Zero-MQ message system that communicated with my hosted Unity platform for logging and queuing commands all stored in a Cassandra DB. Worked on an NLP webservice for NATO that answers queries regarding documents and displays results interactive d3graphs for the user. Fine-tuned and trained my own longformer-based model to summarize long documents for NATO Knowledge Wingman. Hosted in a Redis-backend application with a tensorboard (for model performance) and FastApi Front-End services. Displayed NATO document relations with neo4j graph to show knowledge graph acquisition from text in real-time. Created ipywidgets/bokeh interactive site to view sentiment and topic analysis over time for NATO CRAs and CUI documents.

NOVETTA MACHINE LEARNING ENGINEER

MAY 2020 – MARCH 2021

Researched and applied current state-of-the-art machine learning algorithms including GPU-accelerated Entity Resolution and Rapids/Dask integrated workflows with Apache Spark back-end. For Geospatial AIS data, I generated data extracts in Tableau by connecting to the view using Tableau MySQL connector, configured data extraction by schedule, creating custom data ingest workflow in Apache NiFi, using Kafka as a buffering system. Maintained custom Kubeflow cluster for MLOps development. Authored NLP suite solving problems such as question answering, keyword extraction, event detection, and abstractive summarization. Maintained EKS Kubernetes clusters that hosted development GitLab instance and separately, a namespace for specific runner-configurations. Used Splunk for monitoring and data preprocessing in GovCloud environment. Automated access provisioning IAM roles in development AWS server.

M&T BANK DevOPS ENGINEER

JULY 2019 - MAY 2020

Used Docker and Kubernetes for container orchestration. Built CICD pipeline for deploying applications, Ansible to push configurations to VMs (created with VMware). Used KVM (with SELinux & sVirt) thus applying MAC security to guest VMs in test environments. Load balancing and implementing replication controllers in Openshift managed pods. AWS/Azure cloud computing (IaaS/PaaS). For an internal fraud detection site, I used Hashicorp Vault as a key store, paired with Cloudera Sentry for authorization. Used Ansible to deploy Windows Server update across instances in the firm. Spun-up Kibana instance as part of an ELK stack for an internal recruitment from disparate SharePoint hosts.

LISSA/ LEN LAB RESEARCH, UNIVERSITY OF ROCHESTER

JANUARY 2018 - JULY 2019

Collaborated in building a conversational agent adapted for Autism. Developed web interface and formulated linguistic schemas for commonsense and auto cognitive reasoning using scalable inference engines for Episodic Logic. Deriving general world knowledge from text with domain reasoning, temporal rule-based probabilistic inference using algebraic probabilities. Created Simple webhost with Flask and data storage with MongoDB, to store subject conversations to deploy to Mturk. Using sci-kit learn,

LAB MANAGER, COMPUTATION AND LANGUAGE LAB, UNIVERSITY OF ROCHESTER

SEPTEMBER 2017 -SEPTEMBER 2018

Conducted research on development of numerical cognition cross-culturally- using Bayesian statistics to model human concept learning and relational reasoning. Created interactive visualizations of topics and learning rate hosted with Azure Web Services. Working with Paraview and MedPy to visualize contrast MRI difference across task conditions. Lab manager duties included conducting meetings, handling IRB approval, HIPAA compliance, server maintenance and code reviews.