

Richard Mah

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Experience

Insight Data Science

San Francisco, California, USA

DEVOPS ENGINEER

March 2020 - Present

- Developed Terraform modules to deploy infrastructure on AWS, GCP, and Azure for load balanced API endpoints for the Polkadot and Substrate blockchains for the Web3 Foundation
- Created a Python ETL package for transaction & token analytics for the ICON blockchain to be deployed on Airflow
- Wrote operators for a new templating package, Nukikata, to reduce technical friction when deploying complex IaC infrastructure

Insight Data Science

San Francisco, California, USA

FELLOW, DEVOPS ENGINEERING

September 2019 - February 2020

- Implemented a centralized support services platform for a blockchain validation system providing monitoring, alerting, and service discovery across multiple regions in AWS
- Leveraged Terraform and Terragrunt to create reproducible deployments of fully configured EC2 instances with supporting networking and permissions infrastructure
- Created and tested alerts used for monitoring and automatic instance redeployment using AlertManager and AWS Lambda to ensure timely alerts and recovery of unhealthy instances with minimal operator intervention
- Used Consul to provide service discovery between managed AWS EKS and unmanaged EC2 instances to simplify node access and ensure high availability

McMaster English Language Development, McMaster University

Hamilton, Ontario, Canada

RESEARCH ASSISTANT

September 2018 - May 2019

- Collected eye movement & standardized language testing data for ESL bridging program QA of over 300 students
- Cleaned and prepared data for further analysis using Eyelink Data Viewer, R, and Python
- Performed analyses of data using LME regression and ensemble learning techniques in R and Python
- Developed curriculum modifications for the ESL program which are being implemented to improve student outcome scores and undergraduate program retention

Language, Memory, and Brain Lab, McMaster University

Hamilton, Ontario, Canada

RESEARCH ASSISTANT

September 2011 - September 2018

- Managed desktop and high performance computing infrastructure using MS Active Directory for centralized deployments, and implemented reproducible data processing pipelines using Docker
- Provided primary laboratory management and maintenance; trained and supervised undergraduate and graduate students, and led research teams for NIH and NSERC funded grants
- Collected and cleaned data from >100 subjects to develop a normative sample of brain responses which assess a patient's state of consciousness, which are being integrated into the VoxNeuro clinical assessment
- Performed analyses using ANOVA, linear mixed effects regression, generalized additive models, and ensemble algorithms in R and Python, resulting in the publication of 2 papers with 4 additional papers forthcoming

Skills

LANGUAGES

SQL, Shell scripting, R, Python, MATLAB, Java, Javascript

DEVOPS

Triplebyte Certified DevOps Engineer · **Systems Deployment:** Terraform/Terragrunt, Docker, Kubernetes, Git

Education

McMaster University

Hamilton, Ontario, Canada

PHD – COGNITIVE SCIENCE OF LANGUAGE

September 2013 - September 2018

McMaster University

Hamilton, Ontario, Canada

MSC – COGNITIVE SCIENCE OF LANGUAGE

September 2011 - August 2013

University of Ottawa

Ottawa, Ontario, Canada

BSC HONS – BIOMEDICAL SCIENCES & LINGUISTICS

Sept. 2006 - April 2010