Patrick Harned
Data Scientist/ML Engineer

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Machine Learning Engineer and Data Scientist with experience building end-to-end containerized analytics and AI applications. Extensive knowledge of embedded database programming, database optimization, cloud-native development and Hadoop.

Competencies

- Scala
- Python
- R
- C/C++
- SQL
- Linux
- IBM Cloud/AWS
- Docker/Kubernetes/Openshift
- Hadoop

Career Summary

2021 – present **Data Scientist — IBM Expert Labs**

Build and deploy cloud-native AI solutions on IBM Cloud Paks and Red Hat Openshift for enterprise clients.

- Develop end-to-end model risk management solutions for AI based applications. Develop and deploy Spark applications for MRM on high volume ML models.
- Develop Kerberos authentication API for authenticating containerized Spark jobs to remote Hadoop environments (Hive, HDFS) to support batch scoring of Spark models.
- Developed Scala APIs for exposing NoSQL datastores to visualization layers to provide analytics to LOB for OCP cluster provisioning application.
- Designed stress tests for containerized MRM applications - identified and closed application performance gaps.
- Developed embdedded database applications for performing embdedded database machine learning to support model drift and explainabilty analysis on federated data.
- Developed Gitops workflows with ArgoCD/Terraform to automate provisioning of Openshift clusters and application deployments.

2019 – 2020 **Data Scientist — IBM Cloud Pak Acceleration Team**

Build AI solutions on IBM Cloud Paks and Openshift. Deploy to various cloud providers (AWS/Azure/IBM Cloud)

- Developed federated DB2 data warehouse for merging JSON and tabular data source from external APIs and remote databases (Hive, MySQL, Postgres).
- Developed Scala and Python microservices for integrating analytics applications with federated authentication services.
- Developed and deployed custom ML models (Scala/Akka) for customer ranking and churn prediction.

2018 – 2019 **Data Specialist — Princeton University**

Assist research team in producing visualizations, data validation and data quality pipelines, and conducting statistical analysis of Arab Barometer survey data.

- Design and deploy data quality monitoring pipelines in R and Python.
- Build pipleines for cleanining and managing Arab Barometer survey data to support automated data cleaning.
- Build dashboards, reporting and analytics pipelines. Conducted statistical analysis of Arab Barometer data and contributed to research.

Education

2019 Dual Masters of Global Policy Studies and Middle Eastern Studies (University of Texas at Austin)

2015 Bachelors of Arts, Classical Langauges (Hunter College, City University of New York)

Languages

Native English, Professional Fluency in Arabic, Conversational in Japanese, German, French and Turkish